

CU

BRITAIN'S
FASTEST GROWING
AMIGA MAGAZINE

AMIGA

THE MAGAZINE FOR A500, A600, A1200 & CD32 OWNERS

WHAT A GOAL!

THREE WHOLE DISKS COMPATIBLE WITH ALL AMIGAS: THE UTILITY ROMANIZA CONTINUES WITH VIDEOTRACKER AND THE SUMMER OF SOCCER STARTS HERE WITH SUPERB DEMOS OF TACTICAL MANAGER AND SIERRA SOCCER!

AMIGA GRAPHICS AND VIDEO SPECIAL

THE TURTLE AND MORE ON PAGE 24

PLUS: A
COMPLETE
BUYER'S
GUIDE

83 A500, A500+, A600, A1200 COMPATIBLE AMIGA VIDEOTRACKER

Create stunning demos and videos instantly!

Create brilliant demos incorporating synchronized sound and visuals with this amazing full program. Use it with DREAMWE, SPIN, PROTRACKER, SOUNDTRACK, BRILLIANCE etc. We've even included AGA and non-AGA versions to push your designs to the limits. Careful support makes it perfect for video work too!

NO DISK ATTACHED?
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REVIEWED
JAMES POND 3
IMAGE FX 1.5
AND MORE

EXCLUSIVE!
PAGESTREAM 3 PREVIEW

84 A500, A500+, A600, A1200 COMPATIBLE AMIGA TACTICAL MANAGER

Does anything ever get lost in the name of soccer? That's what happens when you give the greatest demo of Black Legend's Tactical Manager. Absolutely nothing has been damaged or weakened - get back to PLUS! A complete, absolute demo of the wonderful game!

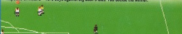


PLUS MORE SUPERB SAMPLES FOR OCTAMER 4
IN PART TWO OF THE CU AMIGA SAMPLE LIBRARY!

NO DISK ATTACHED?
ASK YOUR NEWSAGENT

85 A500, A500+, A600, A1200 COMPATIBLE AMIGA

They commented! This super demo of Sierra's early named soccer game features England Vs The Republic Of Ireland - It's boys against big Jack's boys. You decide the winner.



SIERRA SOCCER
World Challenge Edition

PLUS YES YOU'VE GUESSED IT! EVEN MORE OCTAMER SAMPLES SINCE YOU LOVED THEM LAST MONTH!

NO DISK ATTACHED?
ASK YOUR NEWSAGENT

FRONTIER 2
REVEALED:
SEE NEWS



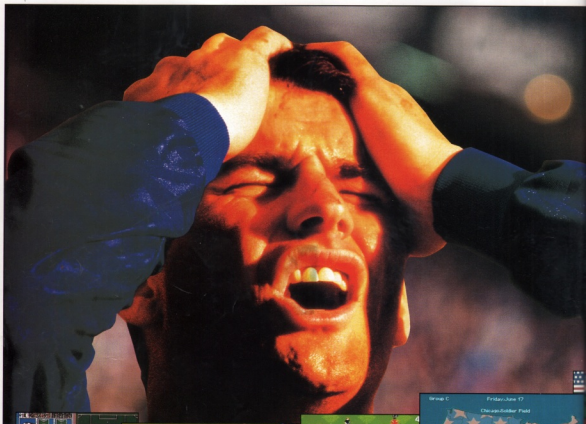
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AN ENAP PUBLICATION

SO REAL



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 Nintendo® Super Nintendo Entertainment System™, GAME BOY™, and the Nintendo Product Seals are trademarks of Nintendo.

Screen shots are from various formats and are illustrative of gameplay and not the screen graphics which may vary considerably
 between formats.



IT HURTS

**nothing
matches
the
anguish...**

...of a missed penalty in a **SHOOT OUT** that could take you to the World Cup final.

That's the reality of World Cup USA '94 from U.S. Gold.

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**...this is a
game for
players.**

It's out on June 3rd and it's the only one worth waiting for

WorldCupUSA94™

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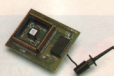
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PC 1202-8 is an A1200 accelerator memory board.

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Primera paper (A4 200 sheets)**£18**
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Primera & Studio DS software**£699**
(Studio software is a true 24-bit printer driver)



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The XL Drive can be used with any Amiga Computer, and allows you to store a massive 1.76MB on a high density floppy diskette. The drive can also act as a standard 880K drive and can read and write disks written on an A4000 internal high density drive. XL Drive requires Kickstart 2 or above.

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XL Drive internal (all Amiga)**£79.95**
XL Drive internal A4000**£89.95**

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- Power Drive**£60**
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Power Drive 1.76MB Upgrade**£49.95**

Features	Power	Amick
Anti-click	•	•
Anti-virus	•	•
Aluminium extrusion	•	•
Sony mechanism	•	•
Isolation switch	•	•
Thru/port	•	•
Upgradable to 1.76MB	•	•
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Beware! Flickering LED's on your disk drive mean that the drive has not been modified by Sony for 100% Amiga compatibility.



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XL Drive Internal/External
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PC880E
Viper 68030 Turbo

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OFF THE CUFF

EDITORIAL



Okay, so some of you may have heard recent rumours of Commodore's imminent demise. Well, don't worry. The current position is fully explained on page 17, and

David Pleasance gives his own version of events in *Commodore Writes on page 23*. Let me give you a worst case scenario though: Commodore UK go bust. This warehouse all over the world are sucked into another dimension and prospective purchasers of their technology (some of the largest corporations in the world) suddenly have a cash flow crisis and can't afford to rescue them. In the short term, the only people likely to be directly affected would be Chelsea Football club. I'm not joking. The Amiga is a world computer. Upwards of three million have been sold in the last eight years and the peripherals, support and software industry that has been built around it is worth millions of pounds every year – this is not all going to fizzle out over night. You'll still be able to buy advanced software, you'll still get the best games, you'll still be able to have your Amiga repaired and you'll still have CU AMIGA. Don't panic, your investment is safe for the moment.

Alan Dykes
Editor

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AMIGA

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All over the world the Amiga's abilities are being used for much more than just gaming and word processing. Its advanced graphics and video capabilities are utilised by TV production companies, movie makers, museum interactive displays and even the London Underground (though not on the Northern Line we hear, it's so slow it's still using ZX81s). Andy Leaning scoured the USA for cartoons and movies, hung around underground stations taking down train numbers, and watched days of television and video to bring you the latest on the best professional Amiga users around. And Tony Horgan? He just partied around the country. From Land's End to John O' Groats, CU AMIGA's very own VJ has pumped his jam and strutted his funky stuff to find out who's who in the underground video production scene. Plus: A buyers' guide to practically every graphics, art, and video package and peripheral you'll need.

GET SERIOUS

PRODUCTIVITY REVIEWS PRODUCTIVITY REVIEW PRODUCTIVITY REVIEW

We've got the lot this month when it comes to serious software and hardware reviews. There's an exclusive behind-the-scenes look at the new PageStream update, reviews of Power Computing's new low-cost hand scanner and the clever GP Fax system, along with tests on the new Microvitec monitor, Hanna Barbera Animation Studio and stacks more!

98 POWERSCAN PROFESSIONAL

We take a 400 DPI-look at Power Computing's latest offering.

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A planetarium in your Amiga – that's what's on the menu in Distant Suns 5.0.

99 DIR WORKS 2

It works, and it's far from dire! Dir Works 2 could be the answer to your SHELL nightmares.

99 AMIGA ASSEMBLER INSIDER GUIDE

Read up on what's what with everyone's favourite programming language assembler.

100 PAGESTREAM 3

The powerful DTP system is releasing version 3.0. We take a sneak peek.

104 IMAGE FX 1.5

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111 FMV CD32 COMPETITION

We've got three FMV-equipped CD32s up for grabs!

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115 A1200 RAM BOARD COMPARISON

The AmiTek Hawk and Blizzard 1220/02 boards go head-to-head.

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Fuzzy images? Blurred vision? Too many bits wobbling around? You're getting old – either that or you need a new monitor.

119 SHARP DV-3750H TV

Use a TV instead of a monitor and watch Home and Away too!

122 PROGRAMMING GUIDE

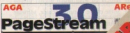
CU AMIGA's guide to programming tools, and all you need to get started.



Could Empire's Hanna Barbera Animation studio be the missing link between traditional cartoon production and computer animation?



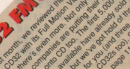
Image FX is under pressure from the new Adobe Pro update – can it hold its own?



PageStream 3.0. The face of modern desktop publishing?



PageStream 3.0. The face of modern desktop publishing?



PageStream 3.0. The face of modern desktop publishing?

SCREEN SCENE DISKS

GAME REVIEWS GAME REVIEWS GAME REVIEWS GAME REVIEWS

If we told you we had the greatest review section in the world, we wouldn't be lying. Where else can you thumb through the pages and find everything you could want to read about, from the brilliant *James Pond 3* to the not so brilliant *Mr. Nuts* from Ocean. We even review *Monopoly*!

52 FIRST IMPRESSIONS

Another chance to take an early look at some of the hot new games coming your way, including *Elfmania* and *Ruff 'n' Tumble*.

54 SIMON THE SORCERER 2

Can a month go by without us mentioning it? I don't think so. Join us as we take an exclusive look at Adventuresoft's sequel.

56 ISHAR 3

Simarils are about to release their latest in a never ending line of enormous RPGs. Steve Keen gets in the mood.

59 VALHALLA

You may not have heard much about it, but *Valhalla* could be the success story of the year. We take an early look.

61 WORLD CUP USA '94

US Gold have got the official licence, and they're very pleased about it. Join us on our American tour.

64 JAMES POND 3

That lovable fish finally reappears on the Amiga, and CU AMIGA were waiting with their fishing rod to see what they could catch.

69 TACTICAL MANAGER

Yet another football management game? Ah, but this is a bloomin' good one. Check the coverdisk if you don't believe us.

73 SYNERGY

Puzzle games are a bit of a rarity on the Amiga at the moment. Imagine our surprise when two turned up at once!

75 MR. NUTS

Ocean Software have developed a console-like platform game with a cute and cuddly character. But is it any good?

78 ARCADE POOL

Chalk your pool cue and get ready to play with *Arcade Pool*.

81 MONOPOLY

Invite some friends round, crack open the wine and start buying property. Or you could get Supervision's *Monopoly*.

82 SIERRA SOCCER

Even more football craziness, and yet another good one. Again, if you don't believe us, check the coverdisk.

84 BENEATH A STEEL SKY SOLUTION

Part one of our two-part game solution will show you everything from how to blow up lifts to stealing drinks in clubs.

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18 NEWS

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Thrills and spills aplenty in this month's three-page extravaganza.

142 ART GALLERY

Lisa's had a bad day, so make sure your pictures are good.



Pond is back, and he's brought a friend. Sorry, I can't think of any good fish jokes.



Simon The Sorcerer is back.



Robot building in *Beneath a Steel Sky*.



Mr Nuts. Not our favourite game.

NEXT ISSUE ON SALE 19 MAY

EDITOR: Alan Henry **DEPUTY EDITOR:** Lisa Cox
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July/August 1993

Another three disks! Can you believe how good we are to you? This month we give you complete, playable demos of Sierra Soccer and Tactical Manager plus a level of the superb puzzle, *Static*.

Video Tracker is also yours to keep, and it's all fully functional! Make your own music and graphics demos and videos without any programming knowledge!

DISK 83 PAGE 8



Quite simply the best coverdisk you'll find on any magazine, *Video Tracker* gives you the key to unlock your imagination and create brilliant music and graphics demos and videos, and it's all fully functional!

DISK 84 PAGE 12



Fancy trying out one of the latest and greatest soccer management games? Here's a full working demo of *Tactical Manager*. PLUS: *Static* - a complete level!

DISK 85 PAGE 13



Sierra are trying their hands at a *Sensible* heater, and they might have cracked it. Try a match for yourself. PLUS: Loads more of Tony Horgan's sample collection plus an exclusive look at the number one song for Christmas (well, not quite).



COVERDISK 83

You've always wanted to make blinding music and graphics demos. Now you can with **Video Tracker!** Perfectly synchronised demos and videos are just a few mouse-clicks away with this fully operational demo-making package, and video users can go one better with the genlock option. Sorted!

VIDEO TRACKER

We've got three versions of **Video Tracker** on coverdisk 83 this month. The first is written to work specifically on 1.3 Amigas, the second is enhanced for Kickstart versions 2.04 and higher, and the third caters for A1200 and A4000 owners with improved AGA features. See page 15 for instructions on loading the right version for your Amiga.

LOADING THE DEMO

There's a demo included on the disk to give you some idea of what **Video Tracker** can do. Select **LOAD VIDEO**, and you'll be shown a file requester with two demos. If you've got a 1Mb Amiga, select **House (512k)**. If you have any more RAM, you can load the other demo (**House**) which is a little larger than the first. Once it has loaded, select **PLAY** to view it. Clicking the left mouse button brings you back to the control panel.

WHAT IS VIDEO TRACKER?

Good question. **Video Tracker** lets you create your own top-notch demos and videos without any programming knowledge whatsoever! The basic theory is that you load in an **OctaMED** or **Protracker**



Soundtracker music module, and then build your audio-visual extravaganza around the soundtrack, assigning various effects, pictures and animations to the samples in the song, resulting in a perfectly synchronised flow of sound and vision. For the more adventurous video user, there's a genlock option too, so you can mix your sound and Amiga graphics with any other video source. Pretty smart, we think you'll agree.

GENERAL OPERATION

Although they look very different, the three versions of **Video Tracker** all work in the same way. The main differences are the layouts of the control panels. These instructions will apply to all three versions, but before we get onto them, you'll first have to get the hang of working your particular version. Look at the two pictures above. The one on top is the main control panel of the 1.3 version, and the second is the control panel of the 2.04 and AGA versions.

1.3 USERS

The 1.3 version uses a customised interface with no pull-down menus. Everything is controlled from the main panel with just the mouse. To change the values in any of the boxes, move the pointer over the number, sample name or whatever, and click the right and left mouse buttons to increase and decrease the value, or scroll

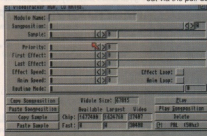
minimise the risk of losing your work this way. (It can be most annoying.)

2.04 AND A1200 USERS

You lucky lot get a much nicer front end than the 1.3 version. All the parameters are altered with slider bars and increment/decrement buttons. All loading and saving is carried out via the pull-down menus. Most of the other options are selected from buttons on the main screen.

HOW IT WORKS

The core of any demo made with **Video Tracker** is the sound track. This can be a standard **Protracker** module or an



through samples and effects.

Clicking on the boxes with the white lettering has no effect. To load a file into **Video Tracker**, use one of the buttons in the panel at the bottom right of the screen. If you want to load in a picture for example, click on the **PICTURE** button. Likewise, when you want to save a file, use the buttons beneath the **SAVE** box. Routine Mode can be altered just like the other parameters, but it also has + and - buttons that add or subtract in steps of 1024. This is because a routine can have up to 65,000 variations, and you probably don't fancy the idea of clicking the mouse button 65,000 times do you?

To remove the control panel and reveal the whole screen, click the small box in the top-right corner of the panel. Click the left button again to bring it back. The box in the top left corner quits the program. Be very careful not to click on this accidentally, as there's no "Are You Sure?" requester - it just quits straight out, wiping your current video from memory.

NB: Save your video regularly to

OctaMED module. Your module is made up of a series of "song positions". Each time you add a block to the song in **Protracker** or **OctaMED**, you create another of these song positions. For example, song position 0 would be the first block in the song and song position 1 would be the following block in the song, even if you had repeated the same block twice at the start of the song.

For each song position, you can allocate a single visual effect or a string of effects for each sample. Song position 0 might have a bass drum and a high hat playing. You could allocate a short animation, a picture or an effect to the bass drum, and allocate something else to the high hat. When the bass drum played, your chosen effect would be shown on screen, and the graphics for the high hat would be shown when the high hat sample played. If both sounds played at once, and you wanted the bass drum graphics to override the high hat graphics, you would give the bass drum sample a higher priority than that of the high hat. The graphics that are assigned to a sample will be displayed until the



sample stops playing. Look at the demo that's on the disk. Move to song position 0, and select sample number 29. This is an 'empty' sample, which was included in the original module as a cue-point. The Priority value is set to 1, which is the lowest priority. A sample with a Priority setting of 0 will have no visual effect.

The First Effect is set to effect number 0, which is SmileBrush (the smiley face graphic in the form of an IFF brush). Last Effect is set to effect number 1, ColourGrid.rout. This is one of Video Tracker's 'routines', which is indicated by the 'rot' extension on the filename. Routines are clever effects like plasma, starfields, picture warps and so on. In this case, the two effects are shown simultaneously, because they both use compatible screen modes. The Effect Speed setting of 1 tells the program to display them both, if possible. No other effects are set for song position 1. To check, move through all the samples in the sound-track, and make sure that the Priority value is set to 0 for all the other samples. The settings for sample number 29 can be completely different in each block, and are not automatically carried forward into the following blocks. In other words, if you move to another song position, sample number 29 will not necessarily be set up to show the face picture and the colour background.

Move to song position 1 and go through the list of samples, keeping an eye on the Priority value to see which samples are used to trigger effects in the second block. Sample 29 now displays a screen of concentric circles, and then uses the PictureMove.rout routine to move it around. It's now joined by another sample called 'beep' which goes through a sequence of displaying four different screens of displaying four. First Effect for 'beep' is set to Effect number 42, while the Last Effect is number 45. Each time the beep plays, it moves one step through its sequence from effect 42 to 45. Try changing the first and last effect settings for the beep sample, then play the video to see the results.

Mess around until you've got a basic idea of how the thing works, then you can get on with making your own demos and videos.

DO IT YOURSELF

To make your own demo, you'll need either OctaMED, ProTracker, or a similar tracker that saves out standard modules. Video Tracker has a special player routine for OctaMED modules, so you don't need to emulate Soundtracker modules. Load your music program and write a module, preferably using small samples rather than lots of long loops. This will give you more opportunity to cue-up graphics in time with the music. Save your module out to disk. If you don't have

much RAM, keep it short, as you'll need to leave room for the graphics.

The other half of the demo will be your graphics. Use Deluxe Paint or a similar art package to create a few pictures and animations.

Use low resolution and fewer colours if you need to conserve RAM. Save these to disk and have them

OCTAMED USERS

There's a bug in the player routine that handles OctaMED modules. If a sample stops playing, and there's nothing else playing after it in the same channel, you get a very high pitched whistle. To avoid this, put loops at the end of all of your samples from within OctaMED. You don't actually want to keep the original sample, you just want to keep it playing to avoid the whistle when played with Video Tracker. The best thing to do is set up a very short loop right at the end of the sample (the last two bytes), and change the volume of these two bytes to zero. That way, the loop will be silent. Because the samples will actually still be playing, you won't get the whistle. This is a bit of a pain, but Video Tracker is just about the only program that allows the use of OctaMED modules as well as the usual Soundtracker format, so don't knock it!

handy for loading into the Video Tracker program. You should now have a music module, and some animations and pictures on disk. Now you can really start cooking.

COOKING WITH DELIA

Load up Video Tracker once again, and select LOAD MODULE. Leave the Video Tracker disk in the drive until the access light goes out. Replace the Video Tracker disk with the disk containing your music module. Click on DF0: from the devices list on the right of the file requester, and then double-click on the name of your music module when it appears in the directory listing. If you're running from a single floppy drive, you'll be asked to replace the Video Tracker disk (referred to as VT). Do as it says. A couple of disk swaps later, you should arrive back at the main control panel.

Now you need to load some graphics and effects. Click on LOAD PICTURE. When the access light has gone out, insert the disk containing your graphics, and click on DF0: from the devices list. Select a picture file from the directory listing by double-clicking it with the mouse.

Once you return to the control panel, move the First Effect counter forward by one, and then select LOAD PICTURE again. Load in another picture. Any effects or graphics are always loaded into the current First Effect slot.

You should now have two pictures and a soundtrack loaded. Select PLAY and listen to the soundtrack. Pick out one of the samples that plays in the first block, and get it up in the SAMPLE selector by cycling through until its name appears in the box. Set

the SONG POSITION counter to zero, and the PRIORITY value to 1. Change the First Effect setting to zero, which should also show the name of the first picture you loaded.

Change the Last Effect setting to 1, which should show the name of the second picture you loaded. Set

EFFECT LOOP to ON (a tick mark on the AGA/1200 versions). Select PLAY and you should see your two pictures jumping back and forth from one to the other each time the sample plays.

ADDING MORE EFFECTS

So long as the sound you've just selected doesn't play continuously throughout the first block, you should now be able to assign another effect to a different sample, which should jump in between the first effect you set up. Keeping the SONG POSITION counter on zero, move to another sample that's played in the first block, and then change the First Effect setting to 2.

Load an effect from the Video Tracker disk, or from your extra Effects disk that you decompressed earlier (see Loading instructions p 15, for details on how to make up your extra Effects disk). Change the PRIORITY setting to 2. This tells Video Tracker to give this sample's graphics and effects priority over the first sample.

DATA AND ROUTINES

Some routines or effects need data files in order to work. For example, the Vector L2.rout routine is for displaying spinning vector objects, but in order for it to work, you first need to load in a vector object file.

Routines such as this will take their object file from the effect slot immediately preceding them. So, if you wanted to have a spinning vector on screen, you would load a vector object file into effect slot number 10, for example, and then load in the Vector L2.rout routine into slot 11. If you happen to have the Videoscape 3D program that we gave away on the November 1992 issue of CU AMIGA now out of print and no longer available from the back issues department), you can design your own vector objects with the ROT program that was included on the disk.

Settings for samples and routines must be made for each song position. When you move to song position 1 or 2, you'll find that none of the samples are assigned to any effects. This is to give you greater freedom to keep the visuals changing from start to finish, but it also means




that if you want to repeat the patterns in a following song position, you'll need to use the copy and paste functions to duplicate them from the previous positions.

LOADING AND SAVING

There are two ways of saving out your videos. Selecting SAVE VIDEO will save out just the data for your video. In other words, it saves out the sequences that you set for all your samples and animations, but doesn't save the sounds and graphics themselves. This has the advantage of saving disk space and loading time. When it comes to loading the video back in, you'll be asked to insert any disks containing the relevant files.

SAVE VIDULE will give you an executable file, which includes all the sound and graphics data. You can then run this from a CLI or SHELL window, or make an auto-booting disk and run it from a startup-sequence script.

Before you can use the SAVE VIDEO option, you first need to save out your video with the SAVE VIDEO option. Now select SAVE VIDULE, and you'll be asked for a video to load. Insert the disk with your just-saved video, and select it from the directory listing. Your video will now be re-loaded, and you'll then be asked to select a video file to save. Put your data disk back into the internal floppy drive, and click on DF0: from the devices list. Enter a filename for your vidule (don't using any spaces or punctuation marks) and press RETURN. Your video will be saved out as an executable file. For info on how to make up an auto-booting disk with a startup-sequence, consult the Amiga manual that came with your computer. 

FURTHER HELP

The documentation included on the disk is very good. If there's anything that you're still unclear about, load up Workbench if you have a 1.3 Amiga, and double click the document icon. Apart from general instructions, this also gives very detailed descriptions of each of the effects and their many variations. This version of Video Tracker does not estimate the user to the support disks that came with registration of the disabled public domain demo version.



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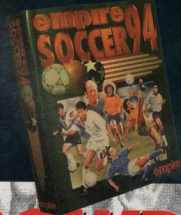
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FROM THE CROWD!



COVERDISK 84

After Arsenal's superb win the other week, we've gone football mad in the office. This month, the super football management game *Tactical Manager* graces Coverdisk 84.

TACTICAL MANAGER

What would you say if we said we were going to give you a complete, playable demo of one of the best football management games around? How would you feel if we told you there were absolutely no options disabled whatsoever. The only catch is that after 9 Premier Division Saturdays or 11 Division One Saturdays, the demo ended, regardless of any number of friendlies or international challenges. We know that you'd be over the moon. That's why we've done it.

Of course, when you've got a game of this size, you can't really give full and complete instructions, after all, the manual is around 80 pages long! So what we'll do is take you through a brief tutorial that should outline the main points of the

game, and then you're on your own. Don't worry though, if you've played a football management sim before, you'll feel right at home with this one.

FOOTBALL CRAZY

Look at page 15 for full instructions on how to load the game. Once the game has loaded, you'll be shown the main screen, with the Talking Birds' logo in the middle, a menu bar along the top and news scrolling up from the bottom of the screen. Watch the news for a bit and you'll see just how much information there is in the game. To see more, click on the 'Options' menu and select 'Brief News', which will switch to 'All The News'. Now you can sit back and watch the progress of your favourite clubs.

the currently selected division appears. Single click on one, and you'll return to the main screen with that club's badge shown on it.

To change divisions, click on the large square on the left of the screen that is showing the current division.

So you want to check out a team? Single click on the badge you've brought to the main screen, and a small information window will appear. Click through the options on it to see what they do, and then choose the 'Select' option. A squad list will appear, and as you move the mouse pointer down the list of players, see how the large list of statistics on the right of the screen change. With that knowledge of the game, you should be able to check out your favourite players and see just how authentic the information is.

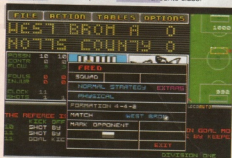
Still, enough messing around. Once you've had a look through the menus and seen what everything does (to get back to the main menu



at any point other than when matches are being played, click with the right mouse button). It's time to choose a team. Unfortunately though, you can't just waltz in and play the team of your choice.

In the full game you have to earn management points before you can handle really big teams, so you'll have to go in at the bottom end. Go to the 'Action' menu and select 'Managers'. A list of the current managers will appear, with Fred at the top of the list. Select Fred, and three menu options will appear. Choose 'Edit' and enter your own name, and then choose 'Join'.

A list of all the clubs in the game will appear, and you can select any with a rating of three or lower. Once you've selected one, click with the



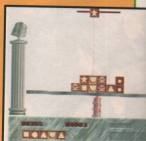
If you want to view any teams at this point, go to the 'Action' menu and choose 'Select Club'. A screen showing the badges of all the clubs in



Yes, we've even managed to cram another game demo onto this disk. If you've read the review this in issue, then you'll already know how to play this simple but extremely addictive little Columns clone.

If you don't, then here's the basic breakdown: Blocks with symbols on them appear at the top of the screen, and you have a limited time to position them before they drop onto the see-saw below. Get three in a line in any direction to remove them, and try to keep the see-saw balanced, as the moment one of the sides touches the ground, it's game over.

Don't stack the blocks any more than four high, as the see-saw drops a level under the weight, and there's no way of raising it again. Skull blocks can't be removed, so you



have to be very careful where you put them. In our demo, all you can do is head for the highest score. In the finished game there are all sorts of challenge levels to work through. Have fun now!



COVERDISK 85

Even more fantastic soccer! Play till you drop with this brilliant football game from Sierra.

SIERRA SOCCER

right mouse button and you'll be back on the main screen.

FOOTBALL MAD

Before you start moving your squad about, let's get straight into the first match of the season. Go to the 'Options' menu and make sure that the fourth item from the top reads 'Highlights', if it doesn't, click on it a couple of times until it does. Then click on the centre circle of the pitch, in the top right corner of the screen.

All the matches of the first Saturday will be played. Wait until your team appears on screen, and your match will start. Let it run for a little while, and then hold down the left mouse button over your team's badge. The information window for your team will then appear, with the third and fourth lines reading 'Normal strategy' and 'Normal playing'. Now you can change the way your team plays.

Click with the left mouse button on each line to cycle through the options, and watch the difference it makes to your game. Choose 'Physical' from the fourth line, and watch how many of your players get booked! See if you can win your first match by finding the right strategy, and then return to the main menu after the game.

Take a look at the various tables and information under the 'Tables' menu, and you will already begin to

get some idea of who are the players to watch over the next few weeks. What you may find, however, is that your team isn't among them. Time to sort out your squad. Click with the left mouse button on your badge, and click on 'Select' to bring up the squad details, then you're ready to go.

To change players around in your squad, click on the first player to move, and then click on the position you want them to move to. To change a player's style (for players who can either be Midfielder or Attack, denoted by M-A after their name) click on the MID, or ATT after their name. If you want to position players manually, click on the word 'Manual' at the bottom of the screen, and you'll be shown a visual layout of the team. Clicking on a shirt allows you to drag the player to their new position. Once you have the set-up you are happy with, click with the right mouse button to go back to the main menu.

That should give you enough of an insight as to how to win in this game. Play around with the transfer list to improve your team, and in no time at all you should see the match results improving.

The game cuts out after eleven Division One matches, and if you aren't winning by then, all I can suggest is go back to the start and try it with a better team.

Good luck!

Team Selection													
	Pl	St	Def	Mid	Att	Goal		Pl	St	Def	Mid	Att	Goal
1	AR	Robson	10	10	10	10	10	10	10	10	10	10	10
2	BT	Robson	10	10	10	10	10	10	10	10	10	10	10
3	BT	Robson	10	10	10	10	10	10	10	10	10	10	10
4	BT	Robson	10	10	10	10	10	10	10	10	10	10	10
5	BT	Robson	10	10	10	10	10	10	10	10	10	10	10
6	BT	Robson	10	10	10	10	10	10	10	10	10	10	10
7	BT	Robson	10	10	10	10	10	10	10	10	10	10	10
8	BT	Robson	10	10	10	10	10	10	10	10	10	10	10
9	BT	Robson	10	10	10	10	10	10	10	10	10	10	10
10	BT	Robson	10	10	10	10	10	10	10	10	10	10	10
11	BT	Robson	10	10	10	10	10	10	10	10	10	10	10
12	BT	Robson	10	10	10	10	10	10	10	10	10	10	10
13	BT	Robson	10	10	10	10	10	10	10	10	10	10	10
14	BT	Robson	10	10	10	10	10	10	10	10	10	10	10
15	BT	Robson	10	10	10	10	10	10	10	10	10	10	10
16	BT	Robson	10	10	10	10	10	10	10	10	10	10	10
17	BT	Robson	10	10	10	10	10	10	10	10	10	10	10
18	BT	Robson	10	10	10	10	10	10	10	10	10	10	10
19	BT	Robson	10	10	10	10	10	10	10	10	10	10	10
20	BT	Robson	10	10	10	10	10	10	10	10	10	10	10

What if football management games aren't your thing? Not to worry, CU AMIGA wouldn't want you to feel left out. Just for you we've added a third disk to this month's issue, complete with a full, playable match between England and the Republic of Ireland in Sierra Soccer – the game so good you'll wonder why they ever spent so much time on adventures. One or two players can partake in this one minute each way, full-on soccer explosion. Reach the end of the match in a tie, and it's into 20 seconds of extra time each way. Still tie at the end of that, and it's penalty shoot outs. This isn't the kind of demo that just gives you a minute and then cuts out. The only way out of this match is in victory.

The controls are remarkably simple for a game of this sort. The arrow above a player shows who you are controlling, and, as a rule this is always the one closest to the ball. To take possession of the ball, you simply need to walk up to it, unless an opposing player has it. When that

happens, you need to perform a sliding tackle, done by simply pressing the fire button.

The rest of the controls are just as easy. Pushing in a direction makes your player run that way, and pressing the fire button kicks the ball in the direction the player is facing.

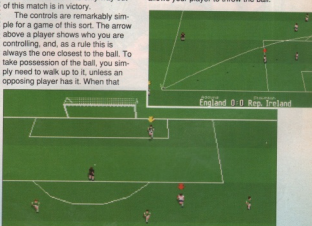
Aftertouch can be added by keeping the fire button held down after the kick and then pressing the joystick left or right. On corner and free kicks you will see an 'arc of fire' which basically points out the direction your shot will go in. This can be moved with the joystick. On throw-ins, press and hold the fire button, then move the on-field player to the position you want him in. Releasing the fire button allows your player to throw the ball.

LAST ISSUE'S AGA ONLY GAME DEMOS...

We received quite a few phone calls about two of last month's demos, *Bubble and Squeeze* and *Banisher*. These demos will only work on AGA machines (each has a logo on the label saying so, and it's also mentioned in the instructions) in the A1200 or A4000. Users of other machines will not be able to load and play them. This will also be true of the final versions, should you want to buy them. If you have an A500, A500+, A600, A1500 or A3000 do not buy programs or magazines solely on the strength of games which are marked for AGA or A1200 only. OctaMED, on disk 80 (worth £45), the fonts and clip art on disk 81 and *Bump n' Burn* on disk 82 are all compatible with non AGA machines – so don't worry, your disks aren't faulty. Remember, a large proportion of new games are being programmed specifically for AGA machines, so watch out for AGA only or A1200 only when purchasing full software packages or magazines. This month's demos are universally compatible with all machines.

Ooops...

We detected an error in the loading instructions for last month's fonts and clip art. If you have been having problems with it then try the following: Follow the preview instructions as provided, but change the line which read 'MAKEDIR FONTS.COLOURFONT' to 'MAKEDIR FONTS.COLOURFONTS' – notice the extra S. This should now work. Mucha apologies.



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TERRAMARQUE
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HOW TO LOAD YOUR AMIGA COVERDISKS

LOADING DISK 83

There are three versions of Video Tracker included on Coverdisk 83: one for Kickstart 1.3 Amigas, another for

Amigas running Kickstart 2.04 or higher, and a third for A1200 and A4000 owners; which makes use of the improved graphics capabilities of the AGA machines.

Put the disk in the internal drive and turn the Amiga on. You will be asked if you run Kickstart 1.3. If you do, enter Y and press return. If not, enter N and press return. (If you see a hand holding a blue disk when you turn on the computer without a disk in the drive, you have a 1.3 machine.) If you enter Y for yes, the 1.3 version of Video Tracker will be loaded automatically.

If you entered N for no, the disk will boot up to a Workbench screen. Double click the disk icon marked VT, then double click the Video Tracker drawer icon. If you have an A500 Plus, an A600, or any other Amiga running Kickstart 2.04 or higher, double click the icon marked Video Tracker to load the program. If you have an A1200 or an A4000, double click the Video Tracker_AGA icon.

DECOMPRESSING THE ROUTINES

In order to fit all the Video Tracker routines on the disk, they've all been compressed into a single file. Before you can use these routines, they have to be decompressed onto a separate disk. If you have a hard drive, and run the installer program that's on the disk, these files will automatically be expanded and copied over for you. Follow these steps to make up your own routines disk.

1. Boot your Workbench disk.
2. Format a blank disk.

DISK VIRUSES

We try to ensure that all our coverdisks are completely free of viruses. We always have the most advanced virus checkers available when the disk is compiled and every program goes through rigorous testing on all relevant Amigas. However, we can not accept any responsibility for possible damage incurred by viruses which have escaped our attention.

3. Replace the Workbench disk, double click on the Workbench disk icon, then double click the CLI or SHELL icon.
4. Type the following, pressing RETURN after each line:
resident c:copy
resident c:dir
resident c:ist
5. Replace Coverdisk 83 into d0:
6. Type the following, pressing RETURN after each line (d0: is entered with a zero, not the letter O):
cd d0:
copy archived.1ha to ram:
cd d0:c
1ha x ram.archived.1ha ram:
5. Replace the Workbench disk when prompted, then wait for the disk activity to finish.
8. Put your blank disk in the internal drive.
9. If you are using any Amiga other than an A1200 or an A4000, enter the following, pressing RETURN after each line:
cd ram:
copy routine to d0:
10. A1200 and A4000 users enter the following, pressing RETURN after each line:
cd ram:
copy routineaga to d0:
11. You can now load these routines into the Video Tracker program.

NOTE FOR HARD DRIVE USERS:

A slight amendment to your startup-sequence needs to be made once you've installed Video Tracker on your hard drive. Edit the startup

sequence by entering:
ed s1startup-sequence [return]
Move down to where the lines read "Assign >NIL; etc.", enter the following and press return:
assign >nil VT: drive name:
Change drive name to the name of the hard drive partition where you've installed the Video Tracker program.

SOUND SAMPLES

Both disks 84 and 85 contain sound samples for OctaMed and other music programs. Disk 85 has nearly 300K of samples, plus a super tune. This can be loaded into OctaMed 4 or previous versions of OctaMed. It can also be loaded into OctaMed 5, but you'll need to load the samples in manually. Disk 84 also contains a few samples, once again in a directory called Samples.

LOADING DISK 84
You've seen the instructions, so now you want to know how to load Tactical

Manager. Before you can, you'll need two blank, formatted floppy disks, as we've had to compress the data to get it to fit - this is a huge demo! 1. WRITE PROTECT YOUR DISK! You'll be doing a lot of disk swapping, so move the small black tab in the corner of your disk up so that the hole is open. This ensures that you won't accidentally write over your coverdisk.
2. Insert Coverdisk 84 into the internal drive of your machine, and switch on your Amiga.
3. When Workbench loads, double click on the CU#84 disk icon, and then double click on the Tac1 icon.
4. Follow the on-screen instructions, swapping the coverdisk for one of your blank disks when prompted. The blank disk must be write enabled (with the hole closed). This

is your program disk.

5. Repeat steps three and four, this time selecting the Tac2 icon, and insert the other of your blank disks. This is your data disk.
6. To load Tactical Manager, reset your machine and insert the program disk. After a while a screen will appear asking you for your data disk. Swap disks, and away you go!
7. To load Statix, switch off your machine and insert the Coverdisk 84 disk. Switch the machine on and wait for Workbench to load.
8. Double click on the CU#84 icon, and again on the Statix icon when it appears. The program will load and run automatically.

LOADING DISK 85

Make sure disk 85 is write enabled (with the hole covered by the tab), and insert the disk

into the internal drive of your Amiga. Switch your Amiga on and wait; before you know it, you'll be shown the intro screen for Sierra Soccer. Make your game selections from the menu, press fire to play and enjoy!

IF YOUR DISK WON'T LOAD

If your coverdisk doesn't seem to work as it should, then follow this simple guide. Firstly, remove all unnecessary peripherals, such as printers, modems etc. Follow the instructions on these pages to the letter, and if, after that, you find that the disk still doesn't work, call the DiskKress helpline on: 0451 861131 between the hours of 3pm and 5pm from Monday to Friday. If they advise you that the disk is faulty, fill in your details below, and send this form, along with the disk and a 2p stamped self-addressed envelope to the following address:
CU Amiga disk returns, DiskKress, Unit 3, Old Coalway Farm, Northleach, Gloucestershire GL54 3EP.
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Describe exactly what happens when you try to load the disk?

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CU NEWS

FANCY A JOB?

If you would like a job using and supporting Amiga applications and know your stuff, then contact Meridian Distribution (tel: 081 543 3500). One of the UK's leading serious Amiga software suppliers, Meridian is looking for a dedicated and knowledgeable Amiga user to support their customers.

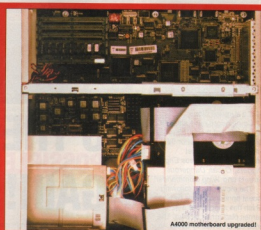
COMMODORE - THE FACTS!

It's been a hectic month for Commodore. Reports circulated that Commodore France had gone into receivership, then even more reports surfaced, to the effect that one of a dozen companies (ranging from the unbelievable to the very possible) would be buying them, and finally, that Commodore had been liquidated! In reality of course, things were very different – but this didn't stop the rumour mongers going overboard. Firstly, as part of their on-going consolidation process, Commodore France was closed. This was done because Commodore is restructuring its various operations and reducing overheads. As the operations in France were effectively being duplicated by those in other countries, Commodore closed their French arm and are now running their Gallic operations from Germany etc. Secondly, Commodore International Limited (the parent company of the UK operation) sought protection of the courts in Bahamas (where they are registered) which is similar to Chapter 11 in the USA. This does NOT mean Commodore have closed down, are in receivership or have folded. What it means is that they are continuing to trade with protection of the courts while they try sort out their financial affairs and problems, possibly by linking with another company who can bring much needed investment to their depleted vaults. It is worth noting that many companies recover from such situations – Commodore's previous on-site repair company, Wang, for instance. And throughout the process Wang continued to operate in the UK! Thirdly, negotiations are proceeding with a potential investor. David Pleasance told CU AMIGA that there is an organisation very interested, that an announcement would be made, hopefully, in the next few weeks, and if it went ahead this buyer would be keeping the Amiga on sale and supported in Europe. One of the reasons they have sought the protection of the courts is to allow these "active discussions regarding investment and re-organisation" to be sorted out.

Mr Pleasance also told CU AMIGA that as far as he was concerned Commodore UK would continue as normal with all models of Amigas continuing to be sold and fully supported. It is also believed that Germany, Scandinavia, Italy and Canada would also all continue.

CU AMIGA spoke to many of the UK and the world's largest Amiga developers, dealers and distributors and they all remained very positive about the future. SDL, the UK's largest supplier of Amigas to dealers, said, "We believe there is a bright future for the Amiga, no matter what, and will continue to support it and independent Amiga dealers."

In short, while Commodore parent's company are having problems at present, the future is still bright and the Amiga in whatever form is likely to continue being sold and supported.



A4000 motherboard upgraded!

A4000 UPGRADES

Commodore have updated the A4000 mother board, although no official announcement has been made. The changes include the 68030-40 moving from the slaughter board to the main board, and the ChipRam now being soldered onto the mother board.

Previously, the CPU (Central Processor Unit, ie the 68030 or 040) was held on a daughter board. Commodore's original plans were to announce replacement daughter boards that would hold more powerful CPUs. This would give A4000

users an easy processor upgrade path. In reality, no further daughter boards have been announced, and Commodore have moved the CPU onto the motherboard, although a daughter board socket is still present.

Although no reasons were given, it is likely the changes are part of Commodore's continued drive to cut costs. By including the CPU and ChipRam on the motherboard Commodore don't need to produce daughter boards for each A4000, thus saving them money. Commodore are on 0628 770088.

PHILIPS DANCES WITH ORION



More FMV magic to come

Philips Media, distributors of FMV movies, have signed up another major studio to bring further blockbusters to VideoCD platforms, including the CD32 with its FMV media.

Philips have tied up Orion films to bring blockbusters such as *Silence of the Lambs*, *Dances With Wolves*, *Robocop*, *Mermadee*, *Bill and Ted's Bogus Journey*, *Married to the Mob* and *Mississippi Burning* out on 5" CD disc.

The deal will see 10 titles released at first, and negotiations are currently in progress to sort out when these will appear in the UK and Europe.

Herb Dorfman, Senior Vice President of Orion Home Video, said: "The high quality video combined with Compact Disc audio is an awesome combination and the ultimate in quality for the home viewing of prerecorded movies."

The Orion films will join existing blockbuster films on the VideoCD format already available from Paramount and MGM/UA, such as *Patriot Games*, *The Hunt for Red October*, *Star Trek IV*, and *Naked Gun Two And Half*.

For further information on the new CD films you can contact Philips on tel: 081-781 8457.

» COMMODORE CUTS PRICE OF CD32



In a surprise move Commodore have slashed the price of the CD32 to just £249 including VAT! For this price, you will now get *Microcosm*, *The Chaos Engine*, *Diggers*, *Oscar*, *Dangerous Streets* and *Wing Commander!*

The move comes following recent announcements by Sega, which has announced a 32-bit games platform of its own. The price cut is obviously designed to preempt Sega's launch and keep Commodore ahead in the 32-bit console market – making it even more difficult for the Far Eastern console giant to compete with Commodore's now market leading system.

The new price also makes the CD32 the lowest priced system available for watching VideoCDs. Commodore are on 0628 770088.

APOLOGIES TO...

First to Software Products Europe. In our May issue we reviewed the amazing *Final Writer*, (an absolute stunner of a program says Andy Leaning!) unfortunately a mistake crept in and we inadvertently said that this product would only work on A120Bs. It will of course run on any Amiga that has Workbench 2.0 and above, 2MB of RAM and a hard drive.

We'd also like to point out that when fully installed *Final Writer* eats up 9.5MB of hard drive space, this being for a complete installation. A minimum installation however will only require 2.5MB of space.

For users who purchased early versions of *Final Writer* (prior to release 2) you can get the new version FREE. Software Products Europe do however require £2.95 for administration and postage. For users who purchased *Final Writer* before March 1st, there is an upgrade cost of £7.95 including post etc. Either way, it's worth having! Sincerely, apologies to Gordon Harwood Computers for accidentally stating that the Blitzard 1230-II has a SCSI-II port built-in. It doesn't, this feature is purely optional. The Blitzard A1230-II will have a price point of £39.95 including VAT and delivery.

Sincere apologies to all companies for these mistakes.

FRONTIER 2!

David Braben is currently heaving away on a sequel to *Frontier – Elite 2*, aiming for release towards the end of this year. Going under the unassuming title of *The First Encounter*, the product will be a complete stand alone game – not an update disk as was originally intended. Using the same game engine as *Frontier*, the game is set a few hundred years before the original, and will give the player an insight into how the Federation was formed. We'll have more information very soon.



DO THE IMPOSSIBLE AGAIN!

MicroProse are about to release the follow up to that amazing 8-bit platform game,

Impossible Mission – the game that launched a thousand others, including games like *Flashback*. Anyone who ever owned a Commodore 64 will tremble with excitement at the thought of a



scruped up rendition of this fabulous game, and judging by these screenshots, they are fully within their rights to get excited. The new version sticks fairly closely in content to the original, but adds things like scrolling, three different characters to play plus a pixel perfect copy of the original game, if you fancy making the comparison. We'll have a full review next issue.

POWER UP WITH A DISK DRIVE!

Power Computing are planning to release a new low-cost Amiga disk drive. The new drive which should be available in June will feature anti-click technology. (Power Computing invented anti-click disk drives – a mechanism which stops the disk drive constantly clicking.)

At the time of going to press no prices were available but it is known that the drive will compete with many of the lower cost disk drives available, probably around £49.

Power are on 0234 273000.

SEALED UP

Commodore (UK) has introduced an official Seal of Approval for Amiga peripherals and software. Commodore claim that any product that passes their "rigorous tests in Commodore's US and UK offices" will be a guarantee of quality.

David Pleasance, Commodore UK's joint-managing director, said: "We want to give users reassurance when they invest in a machine. The Seal of Approval will provide that reassurance."

Several leading peripheral developers have already applied for the Seal of Approval, with Power Computing expected to get it for their scanners, disk drives and RAM cards.

Some industry observers however questioned the value of the Seal of Approval, querying whether it would be worth the added cost, citing magazine awards, the CU AMIGA Technical Excellence award for example, as possibly more cost effective.

Power Computing are on 0234 273000. Commodore can be contacted by calling 0628 770088.

FREE SHOW TICKETS FOR SPOTLIGHT LIGHT 1994

A show dedicated to the Amiga and Atari ST will be held on 28th and 29th of May, 1994, at the Novotel Hotel Hammersmith. This will be the second SPOTLIGHT show, the first was held last year and received an enthusiastic reception.

Dubbed 'the thinking Amiga users show' it has been organised by a group of manufacturers, distributors and dealers to cater for all users. In particular, it aims to support users interested in productivity applications rather than games.

There will be a range of products from third-party developers, both new and old, on display. The products will include scanners, monitors, disk drives, applications, and development tools. The show will also provide visitors with a unique opportunity to see new hardware and software, watch demonstrations of different configurations, and ask experts from the many of the leading Amiga developers any questions you may have.

CU AMIGA should be there in force, alongside Power Computing, Golden Image, Meridian Software, Gasteiner, First Computer Centre, Hisoft and many more.

The doors will open at 10am on both days, with tickets costing £5.00 on the door, or £3.50 for advance bookings. To help get the show off to a good start CU AMIGA have arranged with Gasteiner to give away free tickets to the first 500 CU AMIGA readers who call 081-345 6573 and ask for their free CU AMIGA ticket. If you are too late for a free ticket, call the above number and book your ticket in advance.

FASTER BBS

Global information network CompuServe has introduced a new high speed 14,000 baud modem links for the UK. The new modems will allow CompuServe users to access the information and files on CompuServe much faster than they previously could.

CompuServe has 1.8 million members worldwide, and 45,000 users in the UK alone. For further information on CompuServe call 0800 289378.

KEEP TAKING THE TABLETS

The boys and girls at First Computer Centre have released Tabby - a compact low cost graphics tablet for the Amiga. The tablet has a price of £19.95, which includes tablet and Amiga driving software, and runs under Workbench 2.04 or higher.

The driver software was written by Nik Lines of First Computer Centre and includes on-line Amiga guide documentation, hotkeys and definition of the tablets active area. CU AMIGA will be reviewing Tabby next month. In the meantime you can find out more about Tabby by calling First Computer Centre on 0532 391444.

NO CHEAP FODDER UNTIL 95

Some readers found the recent story on The Hit Squad's batch of Virgin releases a little misleading concerning the release date for Sensible's Cannon Fodder. Virgin Interactive Entertainment would like to point out that Cannon Fodder, although it has been signed to The Hit Squad, will not be released until January 1995, giving it at least 12 months as a full-price game.



VIRGIN GREENS



Sensible Golf is on the way, and by crickey it looks good! Due for release in November, the Sensible team have abandoned the more traditional view of golf games in favour of their tried and tested, top view with small characters system. "Instead of having a boring landscape 3D view or recreating Leaderboard for the 35th time, we decided to take our totally original Mega-Lo-Mania, Sensible Soccer and Cannon Fodder style and apply it to golf," says Sensible chief, Jon Hare. "There are these four guys walking around the courses, and they each have their own charm and personality. To appease the style-over-content consumers, we have decided to introduce a liberal sprinkling of big snazzy graphics such as oversized pictures of each bloke as he takes his shot."

The game looks like it's going to be very original indeed, with some striking new ideas built in. For example, as you play through the tournaments, you can earn money which is spent on better equipment, such as laser guided balls and rocket powered clubs! We'll have more news when we get it.

VIRTUAL REALITY

An interesting development appeared courtesy of ICE during the ECTS. An American company, VictorMaxx Technologies, displayed a virtual reality system that will eventually work on the Amiga. "What's so great about that?" you might say, "I don't want one of those two ton headsets lying around my living room!" Well fear not, it's an extremely compact system, consisting of a set of stereo headphones over your ears and the smallest possible pair of television screens mounted just in front of your eyes. Picture, if you will, a lum bag strapped over your eyes with the tv screens in the bag part and two small headphones on each of the straps. Now you've got it.

The version we saw was running on the PC with a specially developed landscape program and a copy of Doom. Doom was impressive (it always is) but it's still basically a 2D game designed for a regular screen and you also needed to control it with the keyboard, but this last point will be remedied soon. On the other hand, the 3D landscape was stunning. The brilliant thing about this mini VR headset is that it works in exactly the same way as its two ton arcade ancestor. When you move your head right or left, up or down, or even sideways, sensors pick up the movement and the view changes accordingly. The only part you need a joystick or keyboard for is physically moving in a given direction or, of course, shooting something.

The PC version we saw had stereoscopic vision. Unfortunately, when the Amiga adapter becomes available it will only allow monoscopic vision, but don't worry you're not alone here: the Nintendo, Sega, and Jaguar adapters will only allow a monoscopic view too.

Needless to say most games will not have been programmed with the headset in mind, but VictorMaxx assure us that this will only involve minor tweaking to overcome.

ICE, who will distribute the system in the UK for VictorMaxx, are very confident of its appeal. Due for launch during the summer (if everything goes according to plan), it should be priced around the £500 mark. Watch this space for more news.



A4000 ACCELERATES

If you're the proud owner of an A4000 you've probably been reading the recent reviews of A1200 accelerators with some envy. Some of the latest A1200 upgrades can make Commodore's entry level Amiga machine surpass even the A4000 in processing speed.

If you're one of these people (are you reading this John?), Blittersoft have the product for you. Called X-Calibur the Blittersoft A4000/40 upgrade is reportedly four times faster than the normal A4000/040. According to Blittersoft, the card employs innovative memory design which is better than Commodore's original, producing an improvement over normal memory access by 400% (at 25MHz).

Additional plug-in upgrade processors are available, boosting the performance still further. Initially, a 33MHz will be available to compliment the standard 25MHz model, although Blittersoft hope to introduce 40MHz 68040 shortly, and a 68060 processor version when it ships.

The upgrade is a piggy back board which doesn't use a Zorro slot, and apparently there are virtually no incompatibility problems. The 25MHz version of X-Calibur has a price of £499.95 and should be available by the time you read this. Blittersoft are available on 0908 220196. We will hopefully have a full review of the X-Calibur next month.



LEARNING OVER THE EDGE!



Welcome to a new column, edited by our teching supreme Andy Locking. Here, every month, Andy checks out the possible new Amiga technologies that we may or may not see in future.

News reaches my finely tuned ears this month of a stunning new peripheral now in development. The Vinyl Drive combines the latest technology combined with tried and tested vinyl storage technology to give a very low cost, high capacity medium capable of the storage and playback of full motion video and stereo sound.

Powered by an VLSI chip codenamed RADE (Retrieval And Decompression Engine), it is reported that this can pull data off the storage medium at rates faster than 3.75Mb per second, and decompress them on the fly. The RADE chip maintains state-of-the-art analog-to-digital converters, with a 1Mb look-ahead on-board buffer, and dedicated

JPEG/MPEG decompression chipset. A secondary DSP chip provides audio reproduction at frequencies of 44.9kHz – just higher than CD audio at 44.1kHz.

Beta test systems are already with developers who are working to produce games and other interactive products to take advantage of it. Millennium of James Pond 4 fame, are already working on the first interactive vinyl games and no doubt many others will get in on the turntable action.

By combining production lines already in place to produce the mechanics of the vinyl drive, with state-of-the-art digital and micro-processor technology, the unnamed manufacturer can produce the drives for as little as £5,000 per unit, translating to a UK price of £100! Even better, by using a low cost Vinyl based medium the actual films and pop albums will retail for under £10!

And best of all, the Vinyl drive will play all existing vinyl albums and records, at either 78 or 45 rpm – dig out those Beatles albums now.

ECTS VS ROM DUMP

The ECTS was a veritable hoard of games software for the Amiga, although disappointingly, almost everything we saw has already been reviewed or previewed. Yes, we know we're not fast and everything, but you still want to have some surprises at the show. Biggest promotion of the weekend has to be Doca's Inferno, which had a whole stand to itself, constantly packed with people wanting to take a look at the PC CD-ROM extravaganzas.

Team 17 were inviting all and sundry into their back rooms to see what the future holds in store. The two most interesting screens on their stands were running the long awaited *Arcade Pool*, and interestingly enough, *Superstar Trek* from Bloodhouse. Quite why Bloodhouse have moved from Daze on this one is unclear, but both parties seem happy with the product move.

Speaking of Daze, both Robinson's *Requiem* and *Ishar 3* were on view for all to see, and Salmirais boss Louis Marie didn't leave the meeting rooms once! Both games are looking wonderful, even if the PCs they were running or did crash repeatedly! Just around the corner were Kompart and Black Legend, displaying *Demomania*, the product that everyone seems to want, *Tactical Manager* – as seen on this month's coverdisk, and *Turbo Trax* from Arcane.

Steve Ties of Arcane was as proud as ever, but we're still not going to pass comment until we see it moving, Steve!

MicroProse had their usual enormous stand, displaying a wide range of PC and

console product, plus Ganshop 2000 CD32 and *Impossible Mission 2025*, the 32-bit update of the game that launched a thousand others. We'll have a full review of *IM* soon. Another enormous stand holder was Virgin – they had three in fact – and it was the large tin box on the ground floor that was attracting all the attention. Admittedly, a lot was in the PC sector, but that didn't stop names like *Sensible Golf*, *Crash Demmes* and *Lost Edge* raising Amiga eyebrows (for different reasons).

Mindscape had a large comfortable suite, along with a poor person wandering around the show in a Pierre Le Chat costume, to celebrate the release of *Dut To Lunch* soon. Not quite so comfortable, but hectic and busy all the way through the show were Millennium, with *James Pond 3* (see our review on page 64) and their next big hit, *Plinko*. Oddly enough, they didn't have any stuffed costumes, not even their old faithful *Pond* one. As a footnote, it's worth pointing out the promotional costumes that didn't quite come up to the mark (and there were a few), such as the Snowman who was wandering around with a two inch gap where his neck should have been, or Nintendo's *Arby* character, who was seen having a terrible time actually trying to get up the stairs into the show. His costume was about two feet too wide!

There were plenty of old favourites to be found at the show too, such as *CyberSpace* and *Dreamweb* from Empire, *Rock Falls* from Grandisim, numerous *Dizzy* games from Codemasters, and even *Simon The Sorcerer* CD made an appearance. A good time had a ball.



DEVELOPMENT & ANIMATION

ECTS was DPS's Personal Animator CAD, or PAR for short. This astonishing card was plugged into an A4000, recording and playing back full motion, full screen video – but it wasn't using MPEG or VideoCD compression standards. Instead, it was compressing the video in real time using a variant of the JPEG compression technology and then storing the images to a hard drive. It provides component video and S-Video in and out and will store the images on high capacity hard drives. CU AMIGA will be reviewing this exciting Amiga card next month.

Elsewhere around the show Amigas in various guises could be found. Long time Commodore trade distributor SDL was drawing crowds with the CD32 and FMV card showing various films and pop VideoCDs whilst Empire software were showing their recently launched *Hanna Barbera Animation Workshop*. Psychonics were showing a CD32 being used to demonstrate a new development system called 'PSY-C'.

In addition to the various organisations with stands there were also a great many serious Amiga developers wandering around, usually hovering near the bar. These included Almathera, Hissolt, Power and Amitek.

Considering that this show was essentially dedicated to games, the large number of serious Amiga developers and users around was surely a good sign for the Amiga in the future.

MORE BIG BUDGET SIGNINGS

The Hit Squad aren't the only company signing up big games at the moment. Action 16, the budget arm of Digital Integration have recently taken on board the wonderful RPG *Worlds Of Legend* from Mindscape, which, if you remember, received a mammoth 90% in CU AMIGA, and the Accolade golfing classic *Jack Nicklaus Unlimited Golf & Course Design*. Both should be available soon, costing a meagre £14.99 each.



STAR CUTS PRICES

Star Micronics has reduced the RRP's for all its dot matrix, laser and colour thermal printers, in some cases by as much as twenty five percent. The new prices see the popular LC-100 fall from £199 to £149, and the LC24-100 drop from £209 to £159.

For further information on the range of printers from Star Micronics contact 0494 471111

COMMODORE SHIPS ITS WARES

ECTS is primarily aimed at the games playing market, something particularly obvious with the number of Amiga games on display at the show. But even so there were, scattered around, several companies using the Amiga for other purposes.

The most notable of these, not surprisingly, Commodore. The Big C didn't just have a stand, they had a whole suite of themselves, in which they were showing off their wares. All the existing Amiga models, plus several new products, were on display. These included the new CD-ROM drive for the A1200 (as exclusively revealed in last month's CU AMIGA) and the new A4000 tower system. The tower system was shown sampling sound and graphics linked up to a high speed SCSI hard drive.

The Commodore suite was also used by several prominent Amiga developers to show off their new products. These included RAMIGA, PREMIER Vision, and other people from Commodore's ACE initiative. The products on display ranged from very large, very fast SCSI based hard drives and optical drives to the acclaimed Video Toaster running on UK systems via a PAL converter.



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Requires 4Mb RAM

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and DOS 5.0;
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recommended

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AN AWARDING EXPERIENCE



Danielle Woodgett and friends with Virgin's award for software publisher of the year.

Every year at the ECTS the giants (and the not-so-big) of the games and publishing industry get together and give each other awards. This year, the ceremony was held in grand style at the London Regent's Hotel on the first night of the three day show. Hosted by Radio 1 DJ Mark Goodier with guest appearances from Dominic Diamond and Mike Edwards from Jesus Jones, the 18 categories were voted on by a panel of editors from games magazines around the world, along with readers from certain regions. The full Amiga roll of honour is:

Most Original Game: SYNDICATE

Software Publisher Of The Year: VIRGIN

BBC Live And Kicking Award: FRONTIER - ELITE 2

The other 15 categories were predominantly PC and console based, with Lucas Arts scooping three awards for *Rebel Assault* and *X-Wing*.

TOAST OF THE SHOW

I was on the Newtek stand that perhaps the most exciting news of the entire show could be found. Newtek are currently in negotiation with several trade distributors to establish an official network of UK dealers for the Video Toaster and we should see the first Newtek supported Toaster and PAL converters available by mid summer. At the time of going to press SDI are hotly tipped to be Newtek's official UK distributor. The PAL converter was a £6000 Prime Image system, and it converted the NTSC signal the Toaster produces to a UK PAL signal wonderfully. According to Newtek they are now working on a real PAL Toaster, and although not definite yet, they hope to have versions ready 'sometime' next year.

Newtek are also evaluating the potential for releasing LightWave as a stand alone application and selling it to games developers. One of the reasons Newtek have at last decided to move into the PAL market is the new generation of games consoles now appearing. Modern games are no longer about tiny sprites and poor animations, but more often 24-bit graphics, 3D backdrops and rendered images - like the Roberts, Microcosm et al. To create such graphics software developers need hefty graphics workstations. Unless of course they happen to have a Toaster! The advantages in speed and intuitive user interface on display were enough to convince many graphic artists that they should spend their money on a Commodore-based system, and that was before they found out how much cheaper an Amiga system was compared to Silicon Graphics etc. It's ironic but Commodore is at last making a name for itself and doing so by helping games developers on other platforms!

MODORE WRITES



Empire who are putting *Empire Soccer* out in about six weeks.

CU AMIGA readers will be aware of the fact that *Mirage's Rise of the Robots* will be a C032 title when it is launched in October. We're delighted that this is the case.

Nothing could really match *Robots* for the excitement it generated at ECTS. What's encouraging for us is that Time Warner Interactive is distributing the title so we're dealing with a global player. TWI are currently looking at developing more software for our format.

From my meeting room behind our stand I could see what a buzz was being created. Two installations accounted for this. First, was NewTek's VideoToaster which was being expertly demonstrated by our Californian friends with Primemage's PAL converter. It's been called the best Amiga peripheral ever - you could see why if you battled your way past the hordes of stunned onlookers.

NewTek are setting up distribution channels as we speak. When that's all taken care of I'm confident the Toaster will come to dominate UK broadcasting just as it has in the US.

Secondly, the Amiga 1200 CD drive. After months of speculation there it was, in prototype form, at last. My position on the add-on is that we have to work towards a fair price. It can't support MPEG and I think this will be a disappointment for some people unless we price it right. If all goes well, we're aiming at a September launch.

Finally, you may have read about our disappointing financial performance. Don't be discouraged. We're on the right track - crisis have been cut by 70 percent, sales are maturing. And the UK is still the heartland of the Amiga. Where else does a specialist Amiga magazine appear amongst the top 100 best sellers as CU AMIGA does? No, the UK is special. That's never going to change.

JARGON BUSTER

PAL - The standard for UK TV signals, most UK televisions can only handle PAL TV pictures and not American NTSC, and vice versa.

NTSC - The standard for US TV signals. The Video Toaster (see below) is designed to only work on NTSC systems, to use a Toaster in the UK you the pictures must be converted to the PAL standard.

LIGHTWAVE - an extremely powerful 3D image rendering application which only runs on the Video Toaster, and is only available with NewTek's product.

LIGHTRAVE - A very handy software utility that allows LightWave to be run on most Amigas, even without a Video Toaster.

VIDEOTOASTER - The best graphics card available for Amigas in America. The Video Toaster lets the Amiga create special effects, images and video captions equal to, if not better, than some of the top TV production graphics workstations. The Video Toaster is one of the main reasons why Commodore have done so well in America.

BET YOU'LL LIKE THIS!

Those lovely people down at Sidmouth Software like CU AMIGA readers. In fact, they like them so much that they're offering their top horse racing prediction program *The Tipster* at the knock down price of £24.95 to you select few thousands. It's a real racing isn't your thing, they'll even do you their surprisingly accurate pools predictor *The Pointer* for the same price.

To take advantage of this most generous of offers, simply fill in the coupon below, and send it with a cheque or postal order made out to Sidmouth Software to this address: CU AMIGA Special Offer, Sidmouth Software, PO Box 7, Sidmouth, Devon, EX10 0TD

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There's a Jeckyll and Hyde streak running through the world of Amiga video. On the one hand, it's all shiny logos and spaceships, quietly rendering away in plush offices around the world. On the other, it's mindwarping plasma tunnels and rough cut-up video samples being chopped and pasted together in bedrooms, and projected to masses of gyrating ravers on the underground party scene. What's it all about, what kit do you need, and how can you get a piece of it all?

CU AMIGA investigates...

Professional VIDEO

Acid Video vs Professional Video

The cutting edge of video production is being sharpened to a point by Amiga users.

These people use their systems to produce videos, be it low-cost productions for underground raves, and parties or more expensive work used for feature films, business presentations and corporate adverts. Over the next few pages we reveal who they are, what they do with their Amigas, and how they do it. In short, we give you the complete low down on Amiga visuals, from the rave scene to the Hollywood and TV fan community and on to the business market. Andy Leaning is your guide through the pin-striped respectable end of Amiga video and Tony Horgan then takes a look at the Acid video scene.

MIND THE GAP

We start off by looking at the UK corporate market. One of the highest-profile users of Amigas in the UK corporate market at present is the London Transport Museum.

The display at the London Transport Museum is a fine example of what can be achieved with the Amiga for interactive work. Scattered around the museum are various displays and interactive terminals providing information on the history of transport etc. The train driving simulator is perhaps one of the LTM's most popular and unique demonstrations. This uses state-of-the-art technology gives members of the public the chance to see the London Underground from a driver's point of view. Surprisingly, they don't use high-powered A4000s, VideoToasters, or even the A1200. Nope, they use the excellent CD32 for creating and presenting their videos.

The Amiga's association with the London Transport Museum was set up by Index.

Information, operating out of Basingstoke. Index Information has been responsible for setting up a great many of the corporate users now employing Amiga technology, and they lead the way in this area, here in the UK. Other organisations they have snapped up include BBC Scotland and British Telecom.

Index Information have developed a hardware expansion for use at the LTM which enhances the CD32. Called the CD32x it provides

two serial ports, a parallel port, networking and even an optional genlock. This expansion has proved hugely popular amongst Amiga users, so much so that it may well be released as a commercial product shortly.

ROLL 'EM!

The UK film industry is another area which has benefited from the power and versatility of the Amiga. David Bernard is a freelance designer who uses his Amiga to produce titles and captions for films. He started with a BBC Master 128 computer, working in an independent video facility five years ago. Then he came across the Amiga and was enticed by its ability to genlock easily, the large colour palette and its general ease of use.

Now he's worked his way up to an Amiga 3000, fitted with an Opal Vision 24-bit graphics card, a 1 gigabyte hard drive, a Sharp JX300 scanner and a DPS Personal Animation Recorder (PAR) card. He also uses Dream, Scala, AdPro, and Broadcast Tiler.

Most of his work he does is video titling, although with the DPS PAR card he is now doing compositions and effects with videos. "It gives the best quality playback I've seen from any hard drive system", says David.

For video titling he uses both Scala and Broadcast Tiler, but prefers Tiler as he feels "it is more geared to film titling".

His most recent work is on a feature film called *Boy Meets Girl*, which when we spoke, was unfortunately still with the film censors. The film is broken down into a series of chapters, and each chapter has a heading. For the heading he used Opal Paint to create textured titles and borders.

Another film he recently worked on is called *Away Day*. For this he used the Sharp scanner to scan in source material and then produced titles with Tiler and Opal Paint.

Dave hopes to expand, and is currently experimenting with the DPS PAR card to see what else he can do with it.

ANYONE FOR TOAST?

In America, Newtek's Video Toaster is probably the one product that has done more for getting the Amiga accepted by professionals than all other related products and companies combined.

For those that haven't heard of the VideoToaster, I should explain. The

Illustration shows: top, the Emmy award-winning VideoToaster. Bottom, the stunning DPS PAR card, and far left, a shot from *Robocop The Series*.

VideoToaster is an expansion card that plugs into the Amiga 2000, 3000 and 4000 and comes with a suite of powerful graphics software. It allows users to create animations, titles, 3D graphics and effects that are frequently beyond the capability of TV production systems. It's also far cheaper than any other comparable system.

The Toaster's appeal is widespread, finding favour amongst hobbyists, corporations, film companies (both small and large), and production agencies.

ROBOCOP

The power and the price of the Toaster has created a vast market of professional users (sales of the Toaster have reached between 50,000-80,000). Robocop, SeaQuest DSV, Star Trek: The Next Generation, and Babylon 5 are just some of better-known visuals that some high-end production companies have created using the Toaster. Hell this thing's even won an Emmy Award for advancing television technology!

Robocop, The Series has also been receiving the Toaster treatment. One of the most popular sci-fi TV series in America at the moment, it's an extension of the film, with the same high quality of effects, gloomy future feel and satire of the original.

This American syndicated series is produced by Canadian-based SkyVision Entertainment, and is hugely popular throughout America. In fact, the second episode got the second highest viewer

rating across the United States the evening it was shown! The series has so far proved even more popular than Star Trek: The Next Generation: we're talking millions of viewers here!

The Amiga is used extensively throughout the show, creating many of the special effects both on its own, combined with traditional visual effects, and in conjunction with work subcontracted out to an agency using a Silicon Graphics workstation.

Thanks to the Toaster, SkyVision can save the time and expense of traditional special effects. Combined with the Silicon Graphics workstation, they've got all bases covered, as Lee Wilson, SkyVision's Visual Effects Supervisor explains: "The combination of the two systems incorporates all the elements of visual and special effects design and computer animation with live action, against blue screen and mattes, creating an exciting and totally unique look".

The Visual Effects team use an Amiga 4000 with a Video Toaster, and although the Amiga system was not originally in their budget, SkyVision went for it in the hope that the added computer power would pay for itself. The result was unexpected.

"A few days after the Toaster arrived, I came in to work to find the entire visual effects crew still in the department after pulling in an all-nighter. The outstanding work they deliver is saving the production time and money, creating elements we don't have to sub-contract to other companies," explained Stephen Downing, Executive Producer, SkyVision.

Typical uses of the Toaster include creating much of the imaging used in Robocop's visor – dubbed RoboVision – showing elements such as targeting, computer feed and systems diagnostics. Many on-screen animations and effects that would normally be either impossible or costly to produce are also produced using the Amiga.

Explosive pucks thrown by Robocop, for instance, are actually animated, and every shot of the puck after it leaves Robocop's hand is created by Lee's team using the Amiga. One example of the flexibility and power that the team have put the Toaster to is creating an entire helicopter fight.

Lee elaborated, "In a merging of the two systems [Amiga Toaster and SGI workstation – ed], the helicopter was built and animated in the computer using Toaster and the Lightwave 3D program then flown over Delta City and John Fraser's beautiful matte painting." Here the artist, John Fraser, created the futuristic cityscapes on the workstation, which were then dropped in, using a

blue-screen matte, to live footage shot on a set, and the helicopter (created with the Toaster) was then added.

The end result is people in a city, with city scraper backgrounds and a helicopter flying in over them – yet in reality only the actors and their surrounding set actually existed!

What's interesting to Amiga users is that rather than simply use the Amiga for static backdrops (if at all) the visual effects team chose to create the moving helicopter with it, and leave the still pictures to an, in theory at least, more powerful workstation! I don't know about you, but I for one can't wait for the UK showing. *

SEAQUEST

Another guy doing wondrous things with the Amiga in the film industry is Tony Stutterheim from Amblin Images. Amblin are one of the most ambitious Amiga users around, using it to create some well known TV programs in the US. Most notable of these is SeaQuest DSV.

Nearly all of visuals in SeaQuest



Video production firms also use the Amiga for all manner of business video productions. This one created by the very renowned Business Video Productions Inc.

are created with an Amiga, to do this they really push their Amigas and pack them with RAM, hard drives and accelerators – in the words of Tony, their Amigas are all 'maxed-out'. As a result they have some of the best Amigas you can get. But even so they would still like more power – particularly to increase the screen redraw speeds.

Most of the work is carried out with Lightwave and Toasters, although they also use DPaint 4 for many of the graphics seen on the monitors on the ship. AdPro is also used to convert files from other formats.

But it's not all action and adventure for the Toaster. Another avid user is Guy Bickel, a graphics designer and 3D-animator for Business Video Productions Inc of Denver and Tampa, Florida.

Business Video Productions produces a variety of different types of work for some major organisations and corporations in the states – and charges some major fees as well!

Their customers include Price Waterhouse, TCI International, AT & T, and Novacare. They use the Toaster for a variety of operations, such as video titling, 3D presentations, and business graphics. The work is used

in training videos, employee communications, and sales and marketing. In addition to the Toaster Guy also uses DPaint and AdPro – a these and the Toaster run on Amiga 2000 and A4000.

According to Guy they use the Amiga and Toaster because, "it's both flexible and powerful."

He originally started using an Amiga, the A500, because "it looked like a happening machine". He's stuck with it ever since, and now feels that "it's more flexible than any other format."

GENIUS

Another keen Toaster user, but one with a difference is Stephen Harris. Stephen is odd. Odd because he is on his way to becoming one of the most sought after Toaster users in the US, yet he's only 16!

His work is used on TV, creating visuals for the WTVI TV channel, an organisation that has very high regard for his work – "You're a genius!" is how WTVI director Stuart Grabsberg described him – and he was only 15 then.

Stephen's work has also been seen on the mighty CNN, and on several other nationally shown TV shows. His most recent work being for a program on women's health. The animations included a camera moving inside a modelled woman's body and seeing a beating heart and various organs. It also included an animation of a medical balloon that travels in a blocked artery to unclog fat tissue, this will be shown across the USA on June 9th.

Stephen uses an Amiga 2000 with the Toaster and likes it because, "The Toaster is so easy to use and has the capability of a higher priced workstation."

With it he creates stunning 3D images and animations. "It's fun" he says, "you can be as creative as you want to be."

As well as being fun, it also makes him a lot of money, his company, Optical Art charges about \$120 an hour for modelling, and \$250-\$400 per second for the actual images! And this is cheap for corporate and film video, for which prices often run into tens of thousands of pounds. Steven is doing so well he recently bought himself a Mercedes – his first car! Not bad for having some fun with an Amiga.

IF YOU WANT TO KNOW MORE!

CU AMIGA thanks everyone who assisted with this article. In particular:

David Bernard who can be reached through the CU AMIGA editorial offices and CIX.

Lee Wilson of Robocop productions.

Christina Knighton of Newtek, Inc.

Letitia McMaster from GVP, Inc.

Stephen Harris Jr and Ser of Optical Art

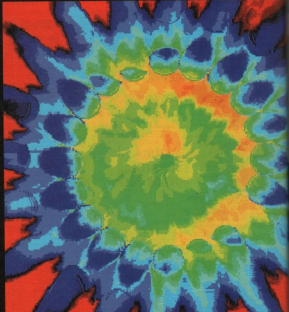


AcidVIDEO

Shiny company logos are all very well, but there's a raw flipside to all of that corporate video stuff. It doesn't have a name yet – it's too whacked out to be squeezed into a cosy



pigeon hole (although we've called it 'acid video'). It's the cutting edge of visual entertainment, and it's all happening thanks to the Amiga! Digital sound-samplers totally revolutionised pop music in the mid 80s – the Amiga is now doing the same for video. Weirdo videos are taking underground clubs and raves across the country to new-found heights, and you could be a part of it all.



With a few bits of kit, anyone can become an 'underground video jockey'. The best thing about it, is that you don't need all that expensive high-end gear to knock out the kind of mind-bending images on these pages. You've probably already got enough to get started already. Just an Amiga and a copy of *Deluxe Paint* alone is a ticket to trip-out city. If you know what buttons to push,

KIT FOR STARTERS

Forget Time Base Correctors. Toasters, kettles and microwave ovens – you won't be needing that lot for now. Here's a list of what you will need to get started, followed by a list of extra kit that will expand your

options a great deal. You'll notice that both lists are reassuringly short.

BASIC KIT:

Any Amiga
A home VCR
Deluxe Paint 4 (or AGA)

EXTRA KIT:

A genlock
A chromakey
A video diplexer
A hard drive
A second VCR
A camcorder
Check out the buyers' guide for info on the extras that suit your budget.

WHAT IS IT?

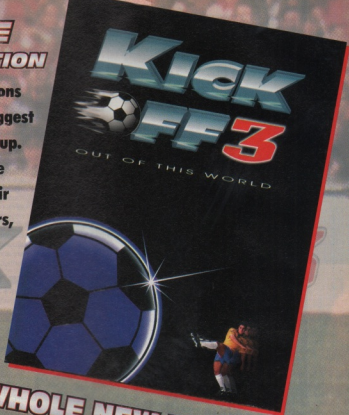
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Switch your tactics and change the game.

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Give the most realistic dead ball situations ever.



ANCO

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ANCO



technology to sample any moving or still image is now available at 'affordable' prices, and the options for synthesising your own visuals is limitless. The question isn't so much 'what is it?' as 'what isn't it?'

TECHNOHEAD VJs

We've all heard of DJs. Now there's a new breed of club entertainer: the VJ. Video Jockeys are the ones responsible for the visuals that are titillating the eyeballs of clubbers and ravers at the more experimental parties around the world.

People are actually taking their Amigas out and gigging with them, live and direct for the hordes of sweaty party people at club nights – like Andy Westherral's Sabresonic, Heaven's Megatropolis, the Ambient Club and stacks more regular and one-off events all over the country.

HEX

Matt Black of Hex and Cold Cut, is one of the new breed of VJs currently doing the rounds with his

A1200, a copy of *Deluxe Paint*, and a couple of video decks. Mixing visuals from video tape with spontaneous animations, created on the fly with *DPaint*, he takes the visual stimulation a step further than the strobe and spinning lights of your average do. Wild explosions of colour from *DPaint* are cut up with the clinical animation of a ray-traced sphinx, which rotates and zooms around the screen cloaked in a mass of video feedback fuzz. Then there are the slogans that worm their way into the subconscious, and stop-frame digitised animation loops, not to mention all the rest of the weirdness that defies description.

Hex and Matt Black can be caught at various clubs and parties around the country. Check your flyers and the music press for forthcoming gigs.

SP VISUALS

Steve and Pod are the S and P of SP Visuals. Using their Amigas to sooth the mind rather than hype it up, they supply the visuals for The Ambient Club, which has recently got off the ground in London. There's no wallet-busting hardware here – most of the images and animations are created on a single A1500 (I told you, any machine will do).

DPaint is the workhorse of the setup, responsible for most of the output. Inventive use of the animation features, and a good eye for what works has lead to them building up a bank of simple but very effective material.

SP Visuals are another collective who like to take their Amigas out with them and play live, but instead of relying on expensive video projectors to get their visuals to the masses, they use a clever concoction of slide projectors to combine transparencies of screens created on the Amiga.

For more info on SP Visuals, contact Pod on 081 341 0655, or Steve on 071 281 0512.

DEEP EVOLUTION

Exactly one year ago, we ran a small piece on Deep Evolution, an enterprising pair who had just released a 20-minute video called *CyberDream*, which was made up mainly of fractal effects, with a few digitised anima-

tions thrown in to spice it all up. Twelve months on, and Deep Evolution have progressed to far more impressive things.

Vison man Alix Pennyquick and DJ Steve Griffiths are now up to all sorts of things. They're the ones responsible for turtle picture which is gracing our front cover this issue. Deep Evolution is now a major force in club visuals. From a humble set-up of an A500 and a video recorder, they've now expanded the system to include AGA Amigas and video digitising facilities. Provisionally titled *Narcotix*, the follow up to the *CyberDream* video looks like it'll be a massive leap forward, with all kinds of new effects and tricks coming into play.

The turtle shot is a frame from a looping animation, which sees the aqua tortoise flying through a plane that has sky both above and beneath, converging at a horizon in the distance. The turtle was grabbed from a video, cut-out, and then put over the sky backdrop, which was mirrored to give the effect of a second sky on the ground. It's nothing you couldn't do with the simplest digitising setup, and looks just amazing when it moves!

Combinations of digitised images and rendered objects courtesy of Real 3D make up a lot of the rest of the video. Even more mind-twisting is the sequence that has a head being sucked down a plug-hole, and lightning fast tunnel sequences.

Steve and Alix have even written-part of the 40 minute video's soundtrack with *OctaMED*, and mixed in other MIDI music and bits and pieces from Steve's vinyl collection.

The real test of all this is in a party situation, and so far, the boys have had no complaints. Playing out at some of the top nights in the North and Midlands, Deep Evolution have been entertaining the crowds with a variety of visuals, with techno-tunnels and computer generated imagery for the more ravey nights, through to short loops from old B-Movies, and digitised 'real world' images for the handbag clubs.

For more information on the forthcoming video, or the live Deep Evolution experience, contact Alix on 021 443 3223. Thanks go to UDO



Not just another ball game...!

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So when the referee blows that whistle, try that diving header, take that spectacular free kick, make that great run through the middle and who knows, you could be good enough to make the World Challenge Cup Final!

Features:

- 1 to 8 players
- Adjustable game duration of 2 to 20 minutes
- Over 500 team members, each with own ability levels
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- Digital sound effects and speech
- Over 4000 animated player images
- Penalty shoot-outs
- Free-kick practice
- Ref, linesmen, physio and stretcher team animations
- And much, much more...

Base configuration:

A500, 1 Mb of RAM
Compatible with all Amigas including A500+, A600
Enhancements for A1200, A3000 & A4000



"Frankly it looks excellent" - "It's shaping up to be a cracker" "In fact, Sierra Soccer could well turn out to be the dark horse of the season" - AMIGA ACTION

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You've seen what the experts can create on their Amigas, now for the definitive guide on the hardware and software needed for Amiga video and graphics. Plus: A complete run down of the latest Amiga paint programs!

With the AGA chipset now present on all production Amigas, you might be forgiven for thinking that the demand for graphics cards would have diminished, but in reality more Amiga users than ever want to improve their visual style.

All the currently-available Amiga graphics cards offer true 24-bit colour, which allows any pixel to be a colour picked from a palette of 16 million shades. Most of these cards work at very high resolution, and the better ones have a video output quality which is good enough for television companies to broadcast directly.

Graphics cards generally come with a paint program of some description, aimed at taking advantage of the superb colour range, and the extra speed made possible by the more direct way the colour data is stored.

All these cards are designed to fit inside a 'big box' Amiga, which rules out the A1200 and lesser machines. They provide an excellent way for A2000 and A3000 users to get better-than-AGA graphics. In general they all use an Amiga graphics standard called EGS, and if you are considering buying a graphics card you should try to get one that complies with EGS. This standard is a way of allowing different graphics cards to remain compatible. EGS creates a common set of library calls, which means any EGS program will run on any card. A popular EGS-compatible program

Buyers' guide Graphics Cards

is *TV Paint*. For value for money we recommend the *Picasso II* from First Computer.

RETINA

One of the first true colour graphics cards, the Retina is still a bit special. Not only does it come with the embarrassingly-named *VDPaint*, but it also manages to emulate the Workbench display which means a single monitor is required. Many existing programs will run directly through the Retina system which makes integrating it into your own system quite easy. One of its strongest features is the ability to link it with MacroSystem other's cards (VLab for example) to produce a very impressive image capture and display system.

Name: Retina
Price: From £329
Supplier: Amiga Centre Scotland
Tel: 0896 87583

PICASSO II

Widely hailed as the best general-purpose graphics card ever, the Picasso card is basically a drop-in replacement for the existing Amiga graphics chipset.

The video pass-through means you only need one monitor to see the improvements.

Although it is not the fastest card ever, the Picasso is probably the best at coping with the Amiga's standard Workbench system.

Recommended.

Name: Picasso II
Price: £299 (1Mb)
£335 (2Mb)
Supplier: First Computer Centre
Tel: 0532 319444

RAINBOW III

The Rainbow is one of the most expensive video cards ever, due to the rather generous 4Mb of high-speed video RAM (more than enough for multiple high resolution, true colour screens) and the extra fast graphics chip used.

The fact that a 32-bit card requires an A3000 or A4000 in order to work may have something to do with it as well.

The Rainbow is also one of the fastest graphics cards available. It comes with EGS support as standard, which means a new-look

Workbench (but no software to run on it). It can use *TV Paint*.

Name: Rainbow III
Price: £1699
Supplier: ChartScreen
Tel: 0425 475515

SPECTRUM

It might be cheap, but the Spectrum is still one heck of a graphics card. It comes with either 1 or 2Mb of RAM, and can support the EGS standard. An on-board blitter keeps up the pace, and takes advantage of the new slots in an A4000 (if you have the right buster chip). Only one monitor is required, as a special video pass-through system is used.

Multiple cards can be fitted to the same Amiga, which allows for really huge multiple-monitor displays. It also runs *TV Paint* perfectly, so the Spectrum is one of the cheapest ways to get EGS compatibility.

Name: Spectrum
Price: £349 (1Mb)
£399 (2Mb)
Supplier: Silica
Tel: 081 309 1111

OPALVISION

This was a card that promised so much – even as much as being the PAL answer to the video toaster. Sadly, not many of the promised options have become available, but it

remains a mighty fine graphics card. OpalVision comes with a vast hoard of support software which really puts the other cards to shame. The *OpalPaint* program is excellent (rivaling *TVPaint2*) and the other items of software demonstrate the ease with which the Opal system integrates with existing Amiga graphics. As it connects to the Amiga's internal video slot, an extra monitor isn't required.

Name: OpalVision
Price: £350
Supplier: Indi
Tel: 0543 419 999

HARLEQUIN

The Harlequin is a broadcast standard video card, which has been used many times by professional video companies. The video output is rock solid, and the list of features is impressive, with an internal 8-bit alpha channel and double buffering options. Software support is good too – most of the top graphics packages can be used with it.

A second monitor is needed to see what Harlequin is up to, but watching *Real3D v2* using the card to render on a separate display is a great way to prove the Amiga's graphical dominance to passing PC users. There are many different versions of the Harlequin, each with differing amounts of video RAM and various optional genlocking options.

Name: Harlequin
Price: from £900
Supplier: Amiga Centre Scotland
Tel: 0896 87583

SPECIAL EFFECTS

A keyer is the shortened name of a 'chromakey', a miraculous video device which is used all the time in professional TV studios. A specific colour in a live video signal can be forced to become transparent, allowing the computer graphics underneath to show through. For example, in a TV studio a weather man or woman stands in front of a large blue sheet. The blue colour is keyed out, and replaced by a computer-generated weather map, complete with animated clouds and raindrops. Both *CineMorph* and *Morph Plus* are capable programs, although *Morph Plus* has our vote.

ROCKEY

These are probably about the best fun you can have with video and its uses will really only be limited by what you can dream up for it. If you want to make some professional looking demo videos, then you must get hold of one of these. You will also need to get hold of a normal genlock (the Roogen looks well beside it). Getting the lighting right takes time, but with lunakeying and chroma keying options, this is one smart box of tricks. If you already have a genlock, rush out and buy one of these now.

Name: Rockey
Price: £129.95
Supplier: Silica
Tel: 081 309 1111



A SWITCH IN TIME?

A Time Base Corrector is essential if you need to combine two live video signals. The problem with video is that to mix it properly using fancy dissolves and overlays rather than basic edits, you need to synchronise the incoming signals perfectly. Each video frame changes fifty times a second, and the start of each frame from both sources must be matched perfectly. This is where a TBC comes in, providing the complex circuits needed to 'sync' together two video sources. The Amiga Centre Scotland have recently released their Tri-Code TBC, which is well worth investigating.

Name: TriCode
Price: £TBA
Supplier: Amiga Centre Scotland
Tel: 0896 87583

Alternatively, GVP also produce a TBC, cunningly called the GVP TBC, which provides everything you'll need in a TBC - CU AMIGA will hopefully have a full review of these next month.

Name: GVP TBC
Price: £TBA
Supplier: Silica
Tel: 081-309 1111

GENLOCKS

A Genlock is a piece of hardware which is vital for superimposing computer graphics over real, live video. The mixing can be very difficult. The signals need to be synchronised, and certain colours in the computer video signal must be made transparent to allow the live video to show through.

The more you spend, the better the quality of the output signal, and the more features. With better genlocks it is possible to fade in and out one or both of the two images, pick the colour you want to make transparent or even invert the transparent colour. We strongly recommend the GVP G-Lock.

MINIGEN

How can you possibly go wrong at this price? The Minigen is an ideal first genlock and will open the door to all sorts of video effects. The image quality, admittedly, is far from perfect, but it works well, especially with live video from a camcorder.

Name: Minigen
Price: £49.95
Supplier: Lola Marketing
Tel: 0858 880182

MINIGEN PLUS

Add £100 and you get some extra keying options, a fader and an extra RGB output for monitoring. The picture quality is better than the Minigen, but far from exceptional.

Name: Minigen Plus
Price: £149.95
Supplier: Lola Marketing
Tel: 0858 880182

ROCGEN PLUS

An altogether classier genlock, the Rocgen offers good image quality at a very reasonable price. It will fade and dissolve very smoothly, and is

worth the extra if you are thinking of getting into Desktop Video.

Name: Rocgen Plus
Price: £149
Supplier: Silica
Tel: 081 309 1111

VIDEOCENTRE

Now here's something that looks a bit special - the VideoCentre from G2 costs a lot more, but delivers some really top-notch effects. It works with SVHS or normal VHS, and offers all the standard genlock features and more besides - a miniature joystick controls video 'windows' of different shapes and also some rather advanced wiping effects. A recent price cut makes it excellent value for more serious video buffs.

Name: VideoCentre
Price: £495
Supplier: G2
Tel: 0252 737151

G-LOCK

Probably one of the most techie looking genlocks available is the G-Lock from GVP. Don't let the little black-box put you off; there are more

features crammed in here than a typist's manual. CU AMIGA. Not only are the normal fading and mixing effects here in abundance, but the G-Lock will also cope with the much crisper SVHS video standard, as well as providing an integrated audio mixer. To top it all off, all G-Lock's features are totally under the software control of ARexx which makes it ideal for those willing to experiment. Definitely a bargain at the current price.

Name: G-Lock
Price: £299
Supplier: Silica
Tel: 081 309 1111

SCANNERS AND FRAME GRABBERS

As far as computers are concerned, there are two types of images - those which appear as real live video, and digitised graphics. Turning one into the other is quite tricky, and will require extra hardware. If you want to use your computer and Deluxe Paint to process pictures taken from your video recorder or camcorder, you first need to digitise them. This process measures the levels of the primary colours: red, green and blue and uses this information to reconstruct the image on-screen in a standard image format. This image can then be loaded into a program such as Deluxe Paint for the customary adding of ridiculous moustaches. Some digitisers can even capture sequences of video, which can then be used for animation purposes.

For images which exist as printed pictures, such as an ordinary colour photograph, you'll need a scanner. Scanners come in two types: hand scanners, and flatbeds. Hand scanners, especially black and white ones, are relatively cheap. Their great advantage is that you don't need a video signal, any picture will do. Their disadvantage is the quality of picture isn't perfect. Simple line drawings work the best, but the results from hand scanning full-colour photographs won't be as good as pointing a video camera at the picture and digitising it.

On the other hand, flat bed scanners give astonishingly good results - much, much better than video. The larger ones operate a lot like photocopiers, and can capture pictures at very high resolutions (800 dots per inch for example) in true 24-bit colour. For digitizers we recommend VLAB, whilst the Epson GT8000 gets our recommendation for scanners.

VLAB

From the same manufacturers as Retina, VLAB is an excellent piece of video grabbing hardware. It's available as a Zorro card, or as a box which connects to the parallel port, but the Zorro versions are a lot faster. Image quality is top notch, and the SVHS version can be used to digitise entire sequences of video by making several automated passes.

Name: Vlab
Price: from £289
Supplier: Hobbyte
Tel: 0727 856005

VIDI

Rombo seem to have been churning out high quality/low price video dig-



iters for yonks now, and a large percentage of Amiga owners either have or want a Vidi12 for their Amiga. With care, the image capture quality is pretty good and as all models of VIDI can be upgraded they are a good place to start. The Real Time versions make capturing colour images from live video footage possible.

Name: VIDI
(Vidi12) £99.95
(Vidi12RT) £199
(Vidi24RT) £299
Supplier: Rombo
Tel: 0506 414631

VIDEOMASTER

One of the first PCMCIA peripherals, VideoMaster will grab video frames and sound in real time directly into the memory of the A1200. If you experiment, you can create some amazing results, and the new software will allow standard IFF animations to be created. VideoMaster will also grab colour full-sized screens with quality comparable or better than Vidi12.

Name: VideoMaster
Price: £97.97
Supplier: HiSoft
Tel: 0525 718181

JX100

One of the fastest resolution of up to 200DPI in 18-bit colour, this miniature flatbed gives some amazing results. The supplied software is a bit old these days, but ImageFX will drive it directly. Recommended.

Name: JX100
Price: £399
Supplier: Silica
Tel: 081 309 1111

EPSON GT6500/8000

For top of the range scanning, these Epson devices are the bee's knees. With scanning resolutions in the thousands of dots per inch, these devices will scan an A4 page for you in monochrome, greyscale or 24 bit colour. The ultimate!

Name: GT6500/8000
Price: £599/£849
Supplier: Power
Tel: 0234 273000

» IT'S ALL IN A TITLE

O writing a genlock is only half the story, you need software to help create and manage the graphics you wish to display. It's possible to get by with a program such as *Deluxe Paint*, but a dedicated title is a better bet. These range from a program that does little more than allow text to be displayed in different fonts and moved up and down the screen, through to a true multimedia development platform which will handle animations and sound effects. For video titling it has to be *Video Stage Pro*.

BIG ALTERNATIVE SCROLLER 2

Simple, fast and basic. Allows titles to be entered and displayed in a variety of ways, nothing complex, just simple and easy.

Name: Big
Alternative Scroller 2
Price: £59.99
Supplier: Emerald
Tel: 081 715 8866

VIDEOSTAGE PRO

A great drag and click interface, and plenty of options makes the latest *VideoStage* more than capable of generating your titles.

With an *ARexx* compatible genlock such as *GVP's* G-Lock, some extremely advanced effects are quite possible.

Name: VideoStage
Price: Pro
Supplier: TBA
Tel: Meridian
081 543 3500

SCALA

More an authoring package than a video titling system, *Scala* is renowned for its ease of use and professional results.

Super smooth fonts with many different effects makes it the top of the range title.

Name: Scala MM210
Price: £149.99
Supplier: Emerald
Tel: 081 715 8866

LET'S GET ANIMATED



Most paint programs handle animation as standard – certainly both *Deluxe Paint* and *Brian* can be used to knock up some high-quality shorts. There are, however, several programs which exist only to aid in the development of animations. These programs offer an 'onionskin' feature whereby previous frames can be seen faintly as you draw a new one, in the same way as a traditional animator would use several sheets of cells stacked one on top of the other. If you're into animations then you should consider one of these, although we prefer the more pricey *Disney Animation Studio*.

DISNEY ANIMATION STUDIO

A good place to start is the *Disney Animation Studio*. It offers many features a beginner will need, and can

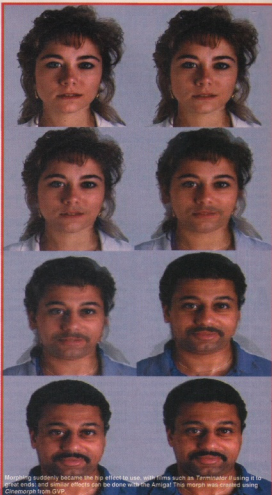
produce reasonable anims, although advanced users may find it limiting.

Name: Disney
Animation Studio
Price: £79.99
Supplier: Infogrames
Tel: 071 738 8199

HANNA BARBERA ANIMATION STUDIO

This package is aimed more at younger users, and as such doesn't have as many features or capabilities. It can still create some basic animations though. (See the review on page 108 of this issue for more details.)

Name: Hanna Barbera
Animation Studio
Price: £49.99
Supplier: Empire
Tel: 081 343 7377



Morphing suddenly became the hip effect to use, with films such as *Terminator* using it for jet-set ends; and similar effects can be done with the Amiga! This morph was created using *Cinemorph* from GVP.

MORPHING CRAZY

Recently everyone needed to be able to morph to images. Why exactly this was so is open to question, but suddenly the ability to transform two images over several steps has become a much sought after feature.

CINEMORPH

GVP's first venture into software brought forth *CineMorph*, which is actually included in the image processing program *ImageFX*. It works by stretching a grid over the two images. The position of the points on the grid forms focal points for the image transformation, and when done properly the finished animation is impressive.

Name: CineMorph
Price: £25

Supplier: Silica
Tel: 081 309 1111

MORPH PLUS

MorphPlus is the rival system from long-time Amiga graphics experts ASDG. *MorphPlus* is a set of extra plug-in operators for *The Art Department Professional*, and besides morphing (or warping), various other effects (spiral blur, twisting, perspective) are provided with typical *AdPro* control. *ARexx* makes creating complicated processes possible, although the animation support is still a little tricky to get to grips with.

Name: MorphPlus
Price: £138.99
Supplier: Silica
Tel: 081 309 1111

ESSENTIAL ITEMS



The following is a collection of general utilities and programs that CU AMIGA highly recommend. If you intend to work with graphics or video on your Amiga, you'll appreciate the power and flexibility that these programs provide.

IMAGEFX

At last, a true rival for AdPro. ImageFX offers just about everything that AdPro does (load and save images in every file format you can think of, process the image in a zillion ways in between) but does it in a different way. The image is always displayed on-screen, which means you can actually draw on it or specify sections to process. You might prefer this approach, but somehow AdPro has a more stable feel to it.

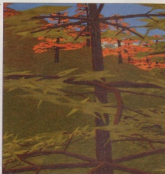
Name: ImageFX
Price: £199
Supplier: Silica
Tel: 081 309 1111

ART DEPARTMENT

The King of Amiga graphics programs has recently been given its most impressive upgrade yet. Out is the familiar grey button festooned screen. In is the increasingly common multiple window freemove interface. The same features are here, but support for a multitude of graphics cards has been added. Still the best choice for all sorts of image manipulation.

Name: Art Department
Professional 2.5
Price: £199.95
Supplier: Meridian
Tel: 081 543 3500

With Amiga software such as Video too you can create a pretty picture.



VIDEO TOASTER

In America, the Video Toaster is the one peripheral which has sold more Amigas than any other. At one point, it was even possible to buy a complete Video Toaster system without knowing there was an Amiga inside. The Toaster is an NTSC-only video manipulation system. It offers just about everything that a professional TV studio or production house could need, from simple video tiling to astonishing special effects which put dedicated equipment to shame. Included in the Toaster package is Lightwave, the most advanced 3D rendering system the Amiga has ever seen. More powerful than Imagine and Real 3D rolled into one, Lightwave has been used in many television programmes to generate everything from submarines (SeaQuest DSV) to spaceships (Babylon 5).

Newslink is currently in negotiations with several UK companies to establish a distribution network and make the Toaster and its powerful 3D image creation software – Lightwave – available in the UK. CU AMIGA will bring you full details just as soon as they are available.

DIRECTORY OPUS

Possibly one of the most useful Amiga programs ever written, Directory Opus soon becomes a vital part of your Amiga. Not only does it make copying and moving files a lot easier, but you can view images, listen to samples, use archiving tools, alter dates and protection flags – in fact, anything you can do from the Shell or Workbench.

Name: Directory Opus
Price: £49.95
Supplier: Emerald
Tel: 081 715 8866

VISTA PRO

Vista is a program which can be surprisingly useful for quickly knocking up a few backdrops for genlocking or painting purposes. The 'Lite' version will work in only 2Mb of RAM which means even owners of unexpended A1200s can experience the joys of terraforming.

Name: VistaPro Lite
Price: £39.99
Supplier: Emerald
Tel: 081 715 8866



PAINT PROGRAMS

The Amiga is very well served with excellent paint programs. Most borrow heavily from the grand-daddy of them all, Deluxe Paint, which is the standard against all others are judged. How do the current batch of programs compare? Would the contenders take to the ring please...

DPaint

Price: £99.99
Supplier: Electronic Arts
Tel: 0753 549442

DPaint was originally the program chosen by Commodore to be included with Amigas – and remained so until recently. Over the years DPaint was upgraded and improved, to the extent that is now both powerful and very user friendly. It is probably one of the most used Amiga applications.

DPaint is a classic Amiga application with menus along the top, tool bar down the right-hand side and a drawing area in the middle. Pressing F10 on the keyboard removes the menu and toolbar allowing you to draw over the entire screen area. Features include all the basic drawing/ painting tools you'll need, simple text entry control, flexible block handling (allowing you to cut, paste and distort sections of a picture), and a respectable number of image manipulation facilities letting you resize, rotate, etc. You can also create small animations (dependent upon memory available). DPaint supports all the normal Amiga display modes and new enhanced AGA screen modes.

PERSONAL PAINT

Price: £59.95
Supplier: Meridian Distribution
Tel: 081-543 3500

Personal Paint has now replaced DPaint as Commodore's chosen

graphics program and has a very similar

look and feel. Unfortunately, however it doesn't support the AGA or HAM display resolutions or, for that matter, have any of DPaint's animation capability. The slow loading and saving times, and often confusing user interface may make you wonder why Commodore ever considered Personal Paint.

Well it's not all bad. Not only can Personal Paint support different file formats, but it will also work with many third-party video cards (EGS and Picasso for example). It also has a number of file image processing facilities built in and has some impressive printing capabilities such as Postscript printing!

BRILLIANCE

Price: £149.95
Supplier: Meridian Distribution
Tel: 081 543 3500

Whilst DPaint and PPaint may be slugging it out, another application, Brilliance, is far in advance.

In the Jan issue of CU AMIGA we compared Brilliance with DPaint and came to the resounding conclusion that Brilliance was the only Amiga graphics package that can take DPaint on and win. Brilliance offers all the tools that DPaint has, but improves most of them.

Brilliance has a vast range of drawing and painting tools, pretty similar block/bush handling, support for the AGA resolutions, animation and similar brush effects.

In conclusion, Brilliance is quite simply the best graphics package on the Amiga, and extremely deserving of the CU AMIGA 91% we gave it. **CU**

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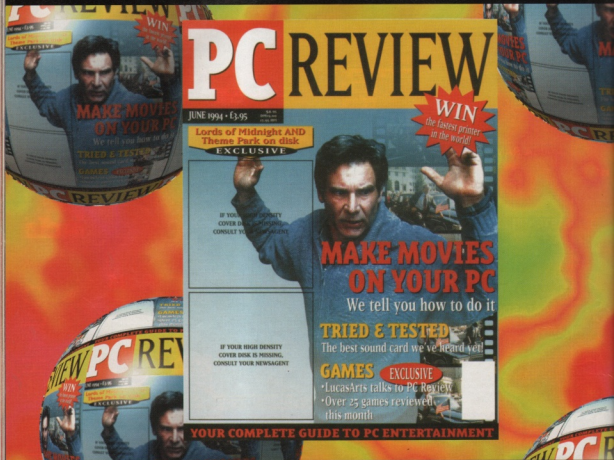
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CD32 ZONE

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NEWS

IT'S A MONSTER!

PC owners have been getting more and more excited at the prospect of Cryo's fabulous new adventure game *Lost Eden*. Now CD32 owners can begin to tremble at the prospect of this monster of a game thanks to Virgin, who are releasing the mammoth dino escapade in November. Set in a fantasy world where dinosaurs exist alongside humans, you play Adam, alone against the dinosaurs which are led by a mammoth T-Rex. Your basic role is to build a citadel to keep the humans in and the dinosaurs out.

As you can see from these PC screenshots, it's an incredible looking game. With breathtaking rendered 3D dinosaurs and scenery, including caverns,

forests, deserts and undersea areas, it's certainly one of the most amazing games we've ever come across. We'll have a full preview in a couple of months, but don't worry - we'll keep finding excuses for printing more screenshots. Contact Virgin on 081 960 2255 for more information.



To fill or not to fill, that is the question. I had quite a lengthy and enjoyable debate with Acid Software's Mark Sibly after the ECTS concerning the amount of space on a CD, and whether a developer really has to fill it to make it value for money. Take *Frontier* this month, for example, which appeared just too late to make it into our review section. The CD32 conversion of the game is a straight port with no added frills, such as improved music or the initially proposed texture mapping. The reason?

GamesTek don't think that the sales would deserve the amount of work that would have to go into it. Obviously, there are two ways of looking at this. From one side, *Frontier* is a great game anyway, so why should it be improved? - especially if the price remains the same on CD. On the other hand, *Frontier* only takes up 650K of the available 650Mb - which means that there is a lot of space left over (some would say wasted). So which way does a developer go? Do they just bung on a few extra audio tracks, or a 15-minute rendered intro, or just stick to producing quality software and hang the size. I honestly don't know, but it's going to be fun finding out.

Tony Dillon
Games Editor



TIME FOR WAR

SCI, formerly known as The Sales Curve, are currently working on the biggest CD game to date, *Cyberwar*. It uses the same graphic technology as its first big CD game *The Lawnmower Man*, based on the film of the same name. Taking up no less than three compact discs, the game features stacks of full-screen rendered animations, and is quite a sight to behold. As far as the PC version of *Cyberwar* goes, both an FMV and a



256 colour version are in development, with a CD32 version due to be released later on in the year. It has yet to be decided whether an FMV CD32 version will be released. If it is, it will probably be the first game to use CD32 FMV properly.



BENEATH A SILVER DISK

Revolution Software are currently putting the finishing touches to their PC CD-ROM version of *Beneath a Steel Sky*, one of the best adventures ever released in CU AMIGA's opinion. Why are we telling you this? Because it's about to be followed up with a CD32 conversion, which will feature 256 colour graphics, full voice over featuring the talents of a host of Splitting Image artists and an animated version of the free *Steel Sky* comic as an introduction. We'll have a full review soon so in the meantime DON'T ruin the fun by reading this issue's solution.



Diary of a game

Out in Wales, where men are men and sheep are plentiful, two fine, upstanding members of the community are coding a game.

PART

3

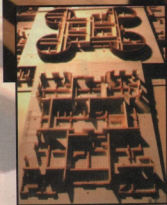
The story so far: John Jones Steels and Dave Rowe, otherwise known as the Stellar Genesis Agency are busy creating the ultimate CD32 game; featuring the kind of features you can only get on CD. The game idea has been developed and accepted by Mindscape, and John picks up the story. "Can four weeks have passed already? It seems that no sooner had I transmitted last month's installment than this one became due."

"Firstly, for those of you concentrating on the story so far, last month there was a reference to an accompanying screen shot of one of the rough mock-ups we are using to speed up development.

"You will have noticed that it did not appear. Hopefully, this month you will be able to see this in all its glory (screenshot, far right). Also to be seen this month is the first view of the look and feel of the final "dressed" (ie complete with textures) room. This shows some of the features we will be using in the game, with realistic shadows from the wall lights and transparent walls (these walls have influenced the way the sprites are accessed - see later in the article).

BEGIN THE BEGIN

"As I said at the end of the last article, the full design of the game had now been accepted by Mindscape, so the real work of producing the



game could start."

Even with the full design ready, John still can't start coding. It's the bane of a programmer's life that they are always waiting around for other people to deliver the goods.

"Before I could start properly on programming the game, the first level's rough art-work needed to be completed, along with the skating sprites. This was going to take Dave

about two weeks, so it seemed like a good idea for me to take a break. So it was off to Gran Canaria for two weeks of serious Space Academy research (if you believe that you will believe anything).

"Sullabally refreshed, it was back to the grindstone and off to Dave's for an update on progress. The first thing that had become apparent was how essential

the models had been (see the pictures of the models accompanying this article). To produce the rough rooms, we only needed to rotate the model to the correct viewpoint and then the room could be drawn.

"As can be seen from the dressed room, the current room can be seen in full, with full lighting and shadows and with the adjoining rooms visible - but with subdued

lighting. As you leave one room and enter the next, the viewpoint switches to the next room by flipping. As long as memory allows, we are hoping that the next room on either side can be cached in memory so as to keep the delay between rooms to a minimum."

CODER'S DREAM

Finally the coding can begin, and this is where the Stellar Genesis Agency have to start putting their talent where their mouths are. Obviously, because the game has been designed by a programmer, the actual coding is already worked out. All John needs to do is get typing.

"With the first 42 rooms, one level's worth, in my possession, the main programming could start. Earlier, I said the sprites were influenced by the graphics. There is one other reason. The finished game will be coming out on both CD32 and

PC CD-ROM. The effects we want to achieve, ie sprites passing behind glass and through shadows can easily be realised on a system with 1 byte per pixel, but to do this on a Planar system, as the A1200 and A4000 have, would be very time consuming.

Luckily on the CD32 we have the Chunky-to-Planar hardware that allows fast conversion between PC-style sprites and the normal Amiga video hardware.

The way the effects are achieved is that as a sprite is being plotted to the screen, each pixel is checked to see if it is behind glass or in a region of shadow. If it is, then the pixel is modified either darker for the shadow region or lighter if it is behind a glass panel. This effect



occurred. In a usual isometric game, the rooms are built up of standard blocks which can then be used for masking off the sprites legs or arms or whatever happens to be behind them. "In the design of Space Academy, we are aiming for a fairly unique look for each room. With Dave busy creating different wall shapes, balcony barriers, doors and furniture for each room, this technique will not work. "The answer to the problem has been to store depth masks of each object over here can get behind along with a mask plane that holds the position of the shadows. "This does mean that there is an enormous amount of data stored for each room, but that is what CD games give us, a huge amount of data space on the disk itself along with more RAM in the console so that this data is readily accessible and does not need to be reloaded from disk each time it is required."

ONE MAN SHOW?

Reading through this month, you could be forgiven for thinking that it's a bit of a one-man operation at the moment. Not so, as Dave has been working all ours in his valley home.

"Dave has been producing more frames of the character animations. As soon as the masking works correctly, I can put those into the game and remove the skating characters. He has also been working with the textures we mentioned last time, producing various flooring brushes and wallpaper brushes ready for the task of completing the fully dressed rooms once all the roughs are finished.

"At this point, I realised that to go between the floor level and the balconies I needed the stairways to be available! We had already decided that all stairs would actually be animated escalators, so we have been working away producing the animations for all views of these moving staircases."

GOALPOSTS

When creating a project of this size, development teams have to set milestones for themselves to break the whole thing down into manageable chunks. SGA are no different.

The first programming task, after the usual screen setup, was to produce maps of each room which contained the positions of the walls to allow collision detection. With this done the main character can now skate around quite happily bouncing into the wall position.

"With this in place the first problem

should be visible in the screen shot of the fully-dressed room."

"With this in place the first problem



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CHUCK ROCK 2 SON OF CHUCK

CORE DESIGN £14.99 OUT NOW



What a cute baby.

As the title suggests, the loincloth clad Neanderthal, Chuck Rock, has been passed over for the sequel to the popular Amiga platformer in favour of his much cuter son, Chuck Junior's his name and clubbing his game and we don't mean the get down and boogie variety either. Junior's got to rescue his pa from the filthy Brick Jagger and to do this needs to swing his way through the jungle to the bad lad's lair.

The caveman kid

starts each game with a full baby bottle of energy and when it's empty he loses a life. Simple stuff, but thankfully, if you lose one of those precious lives, you can just continue where you left off and not have to go back to the beginning. Junior may look as cute as apple pie, but you'll notice that he comes complete with a rather hefty club. As you'd imagine, he can give out a fair old bashing with the weapon, but it also serves to protect the tot too. By pulling down on the pad you can balance the baby on top of the club, thus avoiding certain monsters that can't touch him at this lofty height. In fact, there are a whole host of controls that are not at first obvious to those of us who prefer to use game manuals to rest cups of tea on, rather than read them. Junior can swing the club high to attack low flying dinos, he can leap on the back of some monsters who'll carry him safely forward and he can even jump on ropes and vines and swing like a veritable Tarzan across the screen.

The graphics are pretty dinky, with six different scenes comprising of scores of varying zones. Junior can interact with some backgrounds by bashing them with the club and move rocks across the screen. This enables the youngster to move boulders over spikes and get over obstacles unharmed. There are quite a few surprises in store for the adventurer, with nice graphical touches including cave-men dressed up in dinosaur suits that disrobe as they get hit and huge walking dinosaurs that take up most of the screen.

What with all the different club antics, including a feature that allows Junior to set the club on fire to illuminate parts of a map, there's enough variety to make this quite an attractive romp. The sluggish Amiga cartoon intro has been speeded up to make one of the finest intros ever – the CD32 version finally does justice to the brilliant animation. **Chuck Rock 2** is now a well recommended purchase **Steve Keen**

84%

Flying through the trees with the greatest of ease.



NAUGHTY ONES

INTERACTIVISION OUT NOW £25.99



The naughty ones are John and Jim.

They've been trapped in the fantasy world of an evil king and the duty of traversing the five worlds and getting them back to their own land rests squarely on your shoulders. All you have to do is complete the various rooms that hold the heroes prisoner and then you can get back home.

Naughty Ones can be played as a single player

game or you can team up with an equally mischievous buddy for simultaneous two-player fun. Each room consists of a cunning array of platforms, each patrolled by devious demons in various guises. Indistinguishable blobs scotch up and down the platforms whilst more sinister robots and mechanical contraptions have taken over other levels. Each of the five worlds has a different theme. The first, Mad Mechanics, has a mechanical motif to it with deadly cranes, hidden cannons and heat seeking missiles standing between you and freedom. One of the more devious worlds is Furious Fire, inhabited by compulsive pyromaniacs. On this stage you have to extinguish all the beasts before they set fire to the level and burn it and you to the ground!

A platform game without pick-ups just wouldn't be on, so there's an ample smattering of objects to collect before you reveal the key to the level's exit. You can pick up bouncing killer shots to take out baddies with, extra lives, immortality and extra speed to name a few. The monsters you encounter will also drop coins when they've been killed and it's advisable to pick these up quickly to boost points and progress.

Naughty Ones looks cool enough on the CD32, but the main sprite graphics are pretty small, with some objects almost being missed due to their minuscule rendering. However, the game possesses some nice details such as conveyor belts and lifts to take you further into the game and some freak elemental problems such as flooding. Hidden levels and secret rooms are also included, scattered through out the five worlds, and you'll notice that as the game moves along it gets harder with the enemy sprites

CHAOS ENGINE

RENEGADE £29.99 OUT NOW

The Bitmap Brothers have been around quite a bit of late, so too have **T** Renegade, but it wasn't too long ago that these two stable mates were the toast of the Amiga software world. When first released, Chaos Engine was one of the finest shoot 'em ups around on any home system, and since then it's been converted to just about every other format, so it's good to see it coming home to another Commodore machine.

The Chaos Engine is a gigantic machine – invented to explore time and space – and it's gone horribly berserk. The gigantic structure has begun to disrupt time so badly that human evolution has been altered and the human population has been mutated into various forms of monsters. The only solution is to gather together a team of men to find the machine and blow it to bits. Enter the mercenaries.

Players can choose between six hardened guns for hire. Each party must consist of two characters, one either computer controlled or manned by a second player. Each of the six warriors has his own specialist skills. The Thug is incredibly powerful, but a little stupid, the Preacher has all the smarts and the ability to heal, but he's not too good in a fight, while others, such as the Gentleman, are intelligent and the Mercenary is a good, all round fighter.

There are four monster-infested worlds to explore.



taking on new abilities and attributes. The second level, Crazy Clock, heralds the arrival of baddies that bite back with immortal ghouls that drop objects on you from above as you walk underneath them.

Not the most original game ever seen, Jim and John even look like that more famous duo, Bub and Bob, from *Rainbow Islands*, but a speedy, fun puzzler none-the-less. In fact the whole game has a Bubble Bobble/Rainbow Islands feel to it and, unless there are any secret plans to release those Amiga classics on the CD32 that we don't know about, this will more than make up for their absence.

Young players will like the challenge, but older ones might want a bit more tech to go with their speech.

Steve Keen

80%

Get to the key to find out where the exit is.



each with four sub-levels. What makes *Chaos Engine* so intriguing though is its artificial intelligence. Each level is stuffed with different paths so that even when a world is completed you can go back and discover new avenues to follow. By picking up different coloured keys you can move parts of the scenery to find hidden rooms and weapons or by activating the various nodes in different order you can reveal other levels. When most monsters are killed they throw up all kinds of surprises, like weapons or special gadgets of destruction, allowing each player to have his abilities beefed up.

With improved graphics, a cool intro and brilliant sampled CD speech *Chaos Engine* more than stands tall on the CD32. In fact I'd say it's one of the best games you can buy for the machine. A classic shoot 'em up that's even better on the CD32. Definitely not one to be missed. Let's hope that the team are working on some spectacular CD32 specific products – they'll be monstrous!

Steve Keen

88%

GUNSHIP 2000

MICROPROSE OUT NOW £29.99

Gunship 2000 is regarded by many as one of the best Amiga flight simulators, if not actually the best. The one thing it had above all others was a realistic, undulating terrain. Instead of taking a flat green landscape and just adding the odd pyramid, *Gunship 2000* has a true terrain that you can properly interact with, hugging the hills, following valleys and generally flying the game the way it was meant to be flown. Coming from MicroProse, it goes without saying that the game is realistic, and a superb simulation, but *Gunship 2000* has much, much more than your normal flight simulator.

Now it's available for the CD32, and boy are you lucky CD owners in for a treat. MicroProse have taken the Amiga version and enhanced it beyond all expectations. For a start there's the wonderful intro sequence, where an AH-64A Apache chopper flies low over a lake and then goes into battle along a valley. There's improved sound and music. There's the 256 colour graphics. There's increased speed and even a much smoother update.

Best of all, though, are the controls. On Amiga, *Gunship 2000* used all sorts of key commands to do everything. On CD32, only the important functions are kept on the joystick, with all weapons, power settings and navigation controls at your fingertips. Secondary actions, such as changing your view of the game and examining the map, are brought up on a menu when the game is paused. If you thought a flight simulator couldn't work on a console, then think again.

Gunship 2000 deserves to be one of the big CD32 sellers. It's got stacks of action, plenty of visuals, more explosions than you actually need and you can machine gun camels. What more do you need?

Tony Dillon

92%

Only even more realistic.



Up in the air with my flying machines.



SUBMARINES, GHOSTS, GUNS and MUSIC!

What do the above have in common? Not much, except they're all in FMV movies and releases this month. So it's pop corn time again, as our very own Andy-Barry-Norman-Leaning tries out the latest Full Motion Videos!

It's all action this month, three movies to watch and the first FMV pop video should be available by the time you read this. The movies on show this issue are *The Hunt for Red October*, *Ghost*, *Naked Gun Two and A Half* and the first music FMV title – *Eurythmics, Greatest Hits*.

This month sees the release of a film Alan's is just itching to get his hands on – yes *Ghost* has finally floated in. Quite why Alan wants to watch this timeless tear jerking romantic drama is beyond me, maybe something to do an unhealthy admiration of Patrick Swayze (heck he even knows how to spell his name!). Anyway, *Ghost* is a classic film, loved by practically

SOUNDS ALL RIGHT

If you've got the CD32 and an FMV module and all you have it plugged into is your TV then you're missing out on some amazing sounding experiences.

On the back of the CD32 are two phono jacks. Using standard phono cables connect these to your stereo via either a spare input connector or the inputs for your CD player – remember CD32 has CD quality audio!

Next time you watch an FMV film or play a game, turn on the stereo and listen to the sound coming through, using your stereo to amplify the sound will enhance the FMV film experience even more.

every woman I know, and more than a few men will admit to enjoying it – when pushed that is. As such this



Naked Gun Two And A Half – total slapstick video quality!

FMV version is probably going to go down a storm, and rightly so.

The sound is wonderful, with a depth and clarity that is up to anything yet produced. The visuals are pleasing, although there is a slight loss of detail in dark areas, but overall this is a good conversion. *Ghost* is a real eye-lash-drencher and worth adding to your collection. Quick hand me a tissue!

DIVE, DIVE, DIVE!

The next film is one of my all time favourites, an absolute rip roaring semi-political, action drama. Originally released as the real East/West cold-war was coming to an end, *The Hunt for Red October* charts the activities of a Russian captain trying out Russia's newest and most deadly submarine. But instead of following orders he has his own plans and creates more than a few waves between Nato and the Warsaw pack in the process. A strong plot, with the acting starring Sean Connery and Alec Baldwin adding to a powerful atmosphere set both below and above the waves!

Like *Ghost* the conversion quality of *Red October* is well up to scratch. The sound in this film was particularly better than from my VHS video version, and came out wonderfully through my Dennon surround sound system (see box out). The visuals were also more than up to recent levels and showed none of the fuzz that can be seen in early FMV films.

HE'S BACK - JUST ACCEPT IT!

After overdosing on emotion with *Ghost*, and *The Hunt for Red October* getting more politi-



The Hunt for Red October.

ical than should be allowed, it's time for some humour, and why not! *Naked Gun Two And A Half* is fast paced, slap-stick comedy along the same lines as *Airplane*, and *Police Squad*. The film follows the antics of Frank Devlin as he stumbles his way through another investigation, if you find *Police Squad* humour enjoyable you'll love this.

It's laughs a minute with this film, and unfortunately for all the wrong reasons. Sadly, *Naked Gun* has suffered very badly in the transition from master tape to FMV format – it's the worse I've seen yet, apart from very early promotional titles. The picture blurs regularly, with a definite fuzziness throughout the film and there was also a loss of detail in several frames. Unless you're a diehard Frank Devlin fan, avoid this one.

SWEET DREAMS

When Commodore first unveiled the FMV card for the CD32 one of their biggest claims was that there would be a load of video CDs from the world of music. So far however, there haven't been that many, zero to be precise, but now the first is about to arrive and it is a fine example of what is coming.

Eurythmics, Greatest Hits is, like the films reviewed, a double CD. As you would expect it features both the audio and video tracks to many of their best tracks, including *Sex Crime*, *There Must Be An Angel*, *It's All Right (baby's coming back)*, *The King and Queen of America*, and *Would I Lie to You*. There are 22 songs on the two CDs and added to this is a *Eurythmics* discography. The last track is a collection of still frames (why only still frames?) showing their previous work.

BMG, the record company behind it, are also working on several other FMV titles, although no details were available at the time writing. However BMG are one of the UK's largest record company's and represent other major artists like Lisa Stansfield and Whitney Houston so we should hopefully see some big releases in future.

Typical to the music business, which always tries to charge as much as possible, music CDs will be priced at £19.99, rather than the £15.99 that the films are being sold for. (C)



Ghost – 99 CD, a haunting experience?

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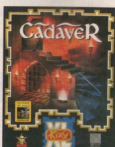
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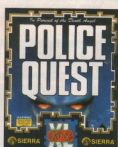
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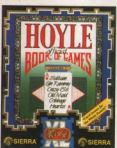
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SCREEN SCENE

Be prepared to have your socks knocked off as you feast your eyes on the selection of games that we have for you this month. Can it get any better, we ask ourselves in a self-congratulatory tone?

- 52 **ELFMANIA**
- SUPERSTARDUST**
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A CU Screen Star is for games scoring 85%-92%. If a game gets one of these, it'll be of lasting quality and you can rest assured that, if you decide to purchase it, you won't be wasting your money.



93% and a game's worth a Superstar. We hardly throw them around, but if a game gets one it'll be completely outstanding.

Their hair is clean.
Their nails have been manicured.
Their shoes have been polished and their shirts care-

fully pressed. First Impressions can be so important, don't you think?

FIRST SUPERSTARDUST

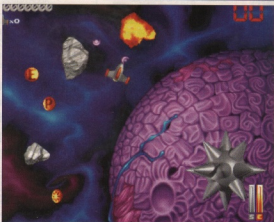
TEAM 17

THE GAMEPLAY: Take Asteroids, add a bit of Asteroids, and for good measure top up with generous dollop of Asteroids. Alternatively, take the previous game Stardust, and add some more Asteroids. If you think you could be overdoing it slightly with the Asteroids, then add a stunning 3D tunnel sequence for variety. **WHAT'S NEW:** Not a lot since the previous game. This is essentially an upgrade of the standard chipset game released through Daze Marketing late last year. Glorious 256 colour graphics, more ray-traced chunks of rock than you could shake a stick at, and the tunnel sequences have been greatly improved.

BEHIND THE SCENES: Bloodhouse, a Finnish company, are the team responsible, with their only other release to date being Stardust itself. Don't worry, though. These clever Finns aren't a single dimension enterprise. They've got plenty of other games to come, and they aren't all based on Asteroids! **FIRST IMPRESSIONS:** We loved the first game, so of course we are going to be a little biased towards this one. Provided they don't change

the playability of the original too much (although it could be slightly easier?) then this is a sure fire hit.

An Itchy trigger finger is just what's needed to play Superstardust. And Terry Dillon? He's itchy all over.



ELFMANIA RENEGADE

THE GAMEPLAY: Elfmania is a beat 'em up to end all others. A fat king has taken over a land by force, and you have to hire combaters to go in and rescue the turf that's rightfully yours. Every fight you win marks a cross on the board that is



IMPRESSIONS

SENSIBLE WORLD OF SOCCER

RENEGADE



THE GAMEPLAY: Naturally a large part of the gameplay is actually Sensible Soccer, upgraded and updated, but this time around there is a hell of a lot more to see. How about every team and every player in every league there is? Pick a continent, pick a country and pick a division – all your favourite teams are there.

WHAT'S NEW: The number of teams in the game. There are games around that allow you to tailor leagues and cups like Sensible World Of Soccer does, but there aren't many that let you do it with African Second Division teams! All the strips are correct and

even the colours of the players heads and hair is right. How do they get so much detail in there?

BEHIND THE SCENES: If you can't guess from the title, then you shouldn't be reading this magazine. Of course it's all been coded by Sensible Software. Who else keeps turning out games with very small characters? OK, DMA Designs...

FIRST IMPRESSIONS: If I said it looked anything else but wonderful, then I'd get lynched. It's Sensible Soccer, so you can't really go wrong with that, and it's been cranked up to a new level. It will go to number one and stay there for a year, as usual.

the world, and when you get five in a line you win! You only have a limited amount of cash, so being frugal at the start means you can splash out on the really big battles.

WHAT'S NEW: The Connect 4 idea. For the first time, we have a beat em up that isn't completely mindless. Instead of just having to work your way through a dozen very similar opponents, you have to play a more strategic angle, adding a whole new dimension to this sort of game.

BEHIND THE SCENES: The whole game has been masterminded by Stavros Fasoulas. That might not mean much to those new to computer games, but Stav was responsible for some of the biggest 8-bit games ever, particularly when it came to the ZX Spectrum.

Welcome to the Amiga, Stav.

FIRST IMPRESSIONS: The game is in quite a playable state at the moment, being only a month from review, so I can easily say it's a great game. An excellently coded product, it's almost guaranteed to fly off the shelves as soon as it hits them.



Take that you brute!

RUFF N' TUMBLE

RENEGADE



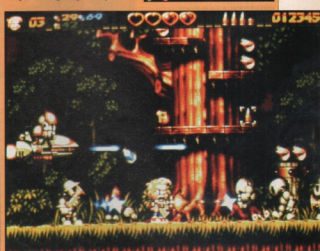
THE GAMEPLAY: A fast platformer where you, as Ruff, have to race around enormous colourful levels, collecting a set number of coloured marbles to take you to the next world. Jump on things to kill them, or shoot them if you can, and do all the other cute and crazy things that we keep seeing in platform games.

WHAT'S NEW: Not a lot, as far as I can make out from playing the game. It's a platformer, borrowing as much from others as they all do. That isn't to say it's not a good game, it just

isn't completely original.

BEHIND THE SCENES: The game is being coded by Jason Perkins, who you will know from his previous work on Apocalypse.

FIRST IMPRESSIONS: As I've said, it doesn't come across as entirely original, but it's playable enough and looks good enough to appeal to a wide section of gamers. At the moment there are a few playability bugs to be sorted out, but once they're done I'm sure it will be great.



Above: Lots of roughness, but no-one seems to be tumbling.

SIMON THE SORCERER 2

- the Lion, the Wizard & the Wardrobe

Simon The Sorcerer is preparing to make his big return. To some, it might seem like he has never been away, but since the first game was finished the boys and girls at Adventuresoft have been beavering away like mad to create the ultimate graphic adventure. There are those who may think that Simon stands up quite easily against anything other programming teams have to show. But be prepared to be amazed. *Simon The Sorcerer 2* - the lion the wizard and the wardrobe really does look like it's going to be a whole lot better.

"We've really gone to town," proclaims Mike Woodroffe, beaming from ear to ear.

"We've got seven full-time artists now, after sifting through over 300 applicants from one advertisement. It's surprising how you can work through so much high-quality art, and end up with a shortlist of 20 to 40 artists, and then find out just how many can't make the jump to computer art. One bloke came in for a test, and walked out in an hour. He did superb artwork, but couldn't hack it on a machine."

FRUITY IMAGES

Take a look around this page, and you'll see the fruit of these seven graphic artists. Although the game is easily recognisable as the sequel to the original, the actual quality of the art is streets ahead.

"The artists started work on the

With the CD32 version of *Simon The Sorcerer* out of the door, Adventuresoft gets stuck into his second escapade. Tony Dillon discovers that things are looking better than ever in wizard world.



Just looking at the screenshots on this page should give you some idea as to how good *Simon 2* is.



first of September," says Mike, pulling out a date-stamped disk from a drawer full of identical disks. 64 identical development disks in fact. So what's the plot for the new

game? Well, essentially, the evil wizard, Sordid, who Simon managed to kill at the end of the first game, has returned - albeit as a ghost, and he wants to wreak revenge upon the

young boy who caused him so much trouble. To do this, he has created a magic time-travelling wardrobe, which will pick Simon up and transport him to the evil wizard. Unfortunately,

YOU'VE BEEN FRAMED



Woosh hose, looks like someone's in a real hurry. Just look at that rilly leg work. The animation is really superb in Simon 2. The above frames are just a small selection from thousands of frames.

something goes wrong, and Simon is dumped outside a shop belonging to the good wizard Calypso, and hilarious consequences follow.

SLOW DOWN VAMPIRE

The puzzles in *Simon 2* look far more complex than its predecessor — there is no way Vampyr is going to solve this one in a day. For example, when Simon arrives outside Calypso's shop in the Wardrobe, Calypso tells him that he'll need to get some Mucoade to generate the 1.21 Gigawatts of power needed to get the wardrobe going again. To get some of the Mucoade, you have to get into the Royal Castle. The King is looking for a new magician, so he



A scene from the introduction, as Sordid explains his evil plan to Runt, his apprentice.

holds a competition. When you arrive there are all these crusty old wizards, and there's no way Simon could compete against these guys with their heavy-duty magic. So the only way to win is to cheat. He goes to the Street Of Traders, and buys a Do-It-Yourself stink bomb kit. Then he has to get some swamp stew from the Swampings who, in the meantime, has gone upmarket and opened a chain of restaurants called McSwampings and doesn't make stew anymore. At this point things start getting really complicated, and without wanting to give too much of the game away, a Swampings costume is made, the stink bomb is let off, various things are done to various people, and then... well, you'll have to wait and see.

FAMILIAR FACES

Once again, Simon Woodroffe, the author of the *Simon* games, has borrowed copious amounts from popular fiction throughout the script. "Simon does this a lot," explains proud father Mike. "If you read through our games, you'll find quotes from all over the place. People like things they're familiar with. This is why *Simon 1* has been so successful. They know the story of The Three Billy Goat's Gruff. They know the story of Rapunzel. It all works for them. It's familiar ground."



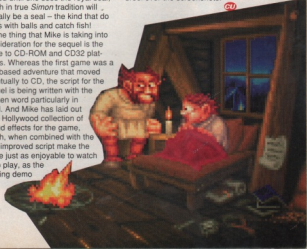
Top left: The Street of Traders. Top right: McSwampings — the Swampings' new home.

There's no shortage of familiar faces in *Simon 2*, just in case you were wondering. Most will have already got the connection with the title (a tip of the hat to C.S. Lewis) and quite a few will have got the *Back To The Future* storyline, but there is much more to it than that. The *Three Bears* make an appearance in this game, but in this case Goldilocks is a persistent offender, and as a result the Bear's cottage is like a fortress — they are so fed up with Goldilocks coming in and raiding it. *The Lady Of The Lake* makes her own waves in the game, dressed in a wetsuit and oxygen tank. You will need to get past her, but she won't let you until she sees the royal seal, which in true *Simon* tradition will actually be a seal — the kind that do tricks with balls and catch fish!

One thing that Mike is taking into consideration for the sequel is the move to CD-ROM and CD32 platforms. Whereas the first game was a text-based adventure that moved eventually to CD, the script for the sequel is being written with the spoken word particularly in mind. And Mike has laid out for a Hollywood collection of sound effects for the game, which, when combined with the new improved script make the game just as enjoyable to watch as to play, as the running demo

Adventuresoft showed at the ECTS proved. The inclusion of sound effects will also be a welcome relief for fans of the original game who only had the choice of music or silence. Mike has listened very carefully to criticisms and praise for the original game, and is confident that *Simon 2* will be the first graphic adventure to get it completely right.

The game should appear somewhere towards the end of September, so don't hold your breath for it. We'll have a full review as soon as we can, but until then, just drool over the screenshots.





ISHAR 3



Daze software is fast becoming one of the largest RPG adventure specialists in Europe. Steve Keen gets the latest chat, straight from the intercontinental fax, on their latest spectacular creation.

June and although French programmers Silmarils are constantly updating the code, they're confident that it'll keep its projected release date. The plot for the third adventure goes like this: The evil wizard Shandar, from *Ishar 2* has made a surprising comeback. His plan is to reincarnate himself in another form, so the search is on for another body. Pulling out all the stops the mad wizard decides to come back as a gigantic 2,000 year old winged dragon, named Wohratak. The creature is immortal and the last remaining member of the Black Dragon race. So it's down to you to destroy the immortal dragon before Shandar can take control of his soul.

"We've introduced a whole new host of features for the new game," says the Silmarils programmers. "In *Ishar 3* you have to travel back in time and find the key plot points scattered throughout history by using the series of time gates — portals that open up pockets back to the past."

To defeat Shandar you have to be in exactly the right place at the right time, whenever that time may be."

In fact, time seems to be a key factor in the entire Silmarils production schedule. The programmers have been beaver away on *Ishar 3* for over a year now, but it looks like it's been worth the wait.

"The AGA version features gorgeous 256 colour graphics, enhanced sound effects and faster gameplay than just about any other RPG around," continues Louis Marie, head of the company's production team. "The CD32 version will feature all the AGA enhancements plus animated film sequences that we've yet to announce. All the action in *Ishar 3* is in first person 3D and the graphics have even more depth and remarkable atmosphere than the previous two games. What we've tried to do is recreate the feeling of

Tolkien-esque adventures on the home computer and produce a game of exceptionally highly polished, state-of-the-art visuals, with a stunning plot. For us, *Ishar 3* is rich in dream-like images, colour and sound and is the closest anyone has ever come to producing a Tolkien-like adventure on computer."

WHAT A PICTURE!

Indeed, *Ishar 3* features incredible graphics with the added novelty of photo-realistic characters.

"All the characters have been created by photographing real people and digitising them into the game," Louis explains.

"This gives the game an even more realistic feel and serves to draw you even further into the plot. You can create your own characters and choose their appearance from a series of French models,

and taverns. RPG fanatics will know that adventure games are loaded with options and features, and so will be pleased to see that *Ishar 3* is no different. Players can choose their own names, race, class, appearance and characteristics from over 100 different personalities. These individual characteristics also affect the action in the game.

"We've given every character his/her own individual style," states Louis Marie. "Some may be prone to stealing, others may not be trustworthy and lie a lot, whilst another group may be murderous and do away with

party members. The programming team have created real-time fighting with totally new tactical screens and even implemented a system that can interrupt combat and turn night to day."

GETTING AROUND TOWN

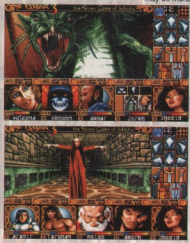
Ishar 3 is totally mouse driven and all the action takes place with the traditional point and click interface. From first impressions the style and feel of the game are in a class of their own and, with its varied sub-plots, *Ishar 3* is definitely not as straightforward as other RPGs. Marie adds:

"Linear is not a word you could use to describe *Ishar 3*. There are always different routes to take and alternate avenues to follow."

Although Silmarils have put humungous efforts into *Ishar 3* they reserve the title of 'Most Technically Advanced Game' that they've produced for the soon-to-be-released *Robinson's Requiem*. However, *Ishar 3* is looking stunning and is definitely one of the most eagerly awaited adventures we've seen for a long time.

Louis Marie concludes: "*Ishar 3* is an extravaganza of an RPG with undoubtedly the finest graphics and the best plot we've come up with yet. Fans of the previous two games will not be disappointed."

And we're certainly not about to argue with him. For now. **CU**



who've been scanned in and digitised from professional photographic portfolios. Every one has their own personality and they develop as individuals as the game goes on. A whole web of sub-plots keeps the game ticking along, so that even when the final goal of destroying the dragon wizard seems miles off, the game never becomes boring because there are always equally exciting tasks to undertake along the way."

A-Z ANYONE?

Seven different locations appear in the game including, jungle, fortress, mountain and forest scenarios. Each location will appear different, depending on which time span you're in, plus there are scores of indoor locations like casino, temple

ISHAR

3

THE SEVEN GATES OF INFINITY



Remember...
So many battles...

But the peace that was so hard fought for, is short lived...
The shadow of Chaos is cast anew on the walls of the citadells...
A journey through the gates of time itself, in pursuit of the dragon of Sith,
the last survivor of the Great Black Dragons...
The third installment in the saga of the Kingdom of Arborea, Ishar 3
journeys once more into the universe of the RPG, with its strange worlds,
mythical adventures, imaginary creatures - possibilities of creating and
reusing the characters from past adventures.



Silmarils

Available for PC and compatibles
AMIGA/AMIGA 1200
ATARI ST/ST/ST/FALCON
MACINTOSH - CD 32

SILMARILS UK, 2 CANFIELD PLACE, LONDON NW6 3BT TEL : 071 328 2762 FAX : 071 328 2738



You may not have heard much about them yet, but by the end of this summer they will be the name on everyone's lips. Let me introduce you to Vulcan Software.

The Portsmouth-based trio of Terry Carrington, Paul Carrington and Lisa Tunnah are extremely excited. Towards the end of last year they came together as a brand new software house, called Vulcan Software, with the aim of righting wrongs, fighting injustice and showing the world just what the Amiga is capable of. Three months into production of their first game, coder/artist Paul is sitting in the bath when he cries the proverbial 'Eureka' and runs screaming to his keyboard. And so, *Vaihalla* was born – the game that looks likely to revolutionise adventure games.

Vaihalla is the tale of a sweet young fellow who has returned to his homeland to stake his claim for the throne which is rightfully his. Before he can do this, though, he has to work his way through an enormous tower, puzzle solving all the way, battling past guardians, pits, spikes, traps and just about anything else you can think of. Still, he's a resourceful young fellow, and with a little luck and ingenuity, he will succeed at this most impossible of quests. Oh, by the way, this is where you come in.

LOOKING UP

Playing the game at this early stage, things are looking quite



TALKING ABOUT THE FUTURE

amazing. Ignoring the typical side-on view favoured by the likes of LucasArts, *Vaihalla* plays from a top-down perspective, so you watch the player from above as he smoothly walks through the castle, his hair swinging with every step. See him get trapped by a spike. See him fall down a pit. Chuckle as he looks up at you and says in a clear voice 'I'm scared'.

What? Didn't I tell you he could speak? It's true, I say, *Vaihalla* is the first ever talking adventure

to run off floppy disks. Four disks of samples provide you with scintillating conversation and amusing insights into the working of the castle as you trundle around fixing injustices. Why else did you think Paul cried 'Eureka'? Okay, so CD owners might not be immensely impressed, but the entire CU AMIGA team was when this disk appeared in the post.

The intention is to give you a character to play with, one you can identify with and enjoy controlling. There is little text in the game, and the simple control method (five

icons, including the save and load menu) means that players will be able to concentrate on the game without worrying about missing anything or not using anything in the correct way. If you try, the little guy on screen will look up at you with those imploring eyes and say 'I can't do that'.

SPEAK CLEARLY

Vulcan are convinced that this is the way forward for adventure games, and playing the first level of this five-level game, I'm inclined to agree. Obviously, the samples aren't as clear as a CD adventure, and they are limited to a couple of seconds at a time, but they do add to the gameplay a lot, even this early on.

The one concern that Vulcan did have was that there was to be no disk swapping at all, something they have succeeded at. You switch disks between levels, but that's as far as it goes. Running from floppy will mean a slight lag between selecting an option and hearing the speech, but as this will be less than a second, there is no danger of floppy players losing out.

With some very clever programming and recording techniques, Vulcan Software have come up with a groundbreaking piece of software. As I speak, the game is about three weeks from completion – quite a feat considering it's only nine weeks old at time of writing. Quite why the game has developed so quickly is a little hard to pin down, but it could just be that Vulcan Software are a

very dedicated and enthusiastic bunch, who love great games and are in love with this one. Or perhaps because the team only comprises three people, the waiting time for all the different elements of the game such as sound, graphics and so on is dramatically reduced because there are fewer channels for all the components to go through.

Vaihalla should be released on all Amiga formats within the next month, with hopefully a CD32 conversion, a little later down the line. Until then you can dribble over these screenshots, and wait for the full review next issue. **CU**

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**Matt Broughton
stumbles and
sometimes falls,
but by god does he
know how to
wallop those balls.
What a tremen-
dous effort!**

Football eh? A game of champions. What a platform for modern heroes. What a good way to get your head kicked in. Yes, we all love a good kick around down here at CU AMIGA HQ, and it's a good job too. Why? Read on.

Anyone who even half reads any of the popular Amiga games magazines should already be more than slightly aware that we're about to be set upon by a large huddle of footy games. (Incidentally, if anybody thinks they know the correct collective noun for footy games, please feel free to write in to us on a postcard - just don't be surprised if we burn it immediately). What you might not be aware of though, is that US Gold is the only company to have the official World Cup licence, and as a result will be producing what promises to be a real stonker.

The preview material for *World*

WORLD CUP USA '94



Cup USA '94 is a hefty old bundle and features Striker, the World Cup's mascot, very heavily indeed. As if to gloat in the faces of their competitors, US Gold have slapped the footballing dog just about everywhere, and have animated him, and I quote, in 'a light-hearted and humorous way to show-off his ball control and lead the player through the generous options' (i.e. prancing around with the ball at every possible moment). From this point on it's options ahoy, and it's as good as guaranteed you'll be playing the game exactly as you want it.

If 'Mr Perfection' is your middle name (like Tony Dillon, or is that 'Mr Plonker'?) then you're likely to be well satisfied by this package, as set piece practice is probably the most impressive option here. The player is able to rehearse just about any aspect of the game, including kick-offs, corner kicks, throw-ins, free kicks and penalties - you can even decide whether you want to play as the shooter or the goalie during penalty practices.

With each of the game's training options you will be able to play either against a second player, the computer, or just an empty pitch (and if you've seen some of my tactics you'd be forgiven for wondering if I could score even then!)

All of the qualifying teams are included in the game, but patriotic folk (i.e. those genuinely upset by the fact that the British team was too sad to compete) will be glad to know that a special 'sad donkeys step this way' option has been included to allow you to play as any national team you fancy. This is done by editing the teams that are actually supplied, and yes, this even includes the sad bunch of rejects that is the England squad (let's not forget it was under Graham Taylor's rule at the time!)

More standard options are at your finger tips too, allowing you to affect the players' speed, the balls 'glue factor' (Well, Graham Taylor could be described as a bit of a Prit Stick), as well as the pitch type and weather. You'll also be able to switch the off-side and back pass rules on and off.

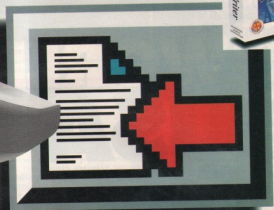
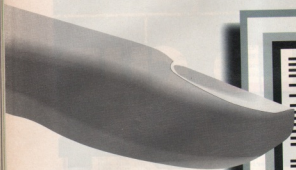
As far as individual teams go, you can not only change their appearance using the strip editor, but can also use the formation editor to either modify existing formations, or to set up your own from scratch, allocating set zones to each player.

World Cup '94 hopes to inject atmosphere throughout, using a number of graphical drop-ins showing refs faces, cards issued, etc. as the game progresses, and after each game you'll also be able to enter a debriefing screen which will show both teams' overall performances and various items of statistical data.

Though we stand to see many, many footy games before the year's out, *World Cup '94* promises to be a game to be reckoned with. But then again, don't they all! Tune in for a full review next month (hopefully). **CU**



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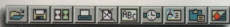
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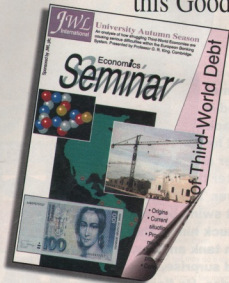
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James Pond is back, and he's bigger and better than ever. Tony Dillon can't swim, but we stuck him in the fish tank anyway. And surprise, surprise. He floats!

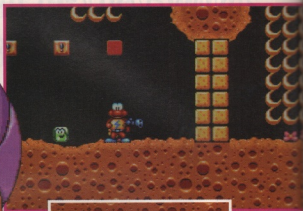
OPERATION STARFISH

Ask anyone to name one of the most influential Amiga platform games ever, and they'll invariably mention James Pond in one of his previous incarnations. Taking what made certain console games the huge sellers they are and making them better is what made *Robocod* the smash hit it was, and I'm pleased to be able to announce that in the sequel to the sequel, *Millennium* have gone even further. If you only ever

buy two platform games for your A1200, this is one of them. (*Bubble 'N' Squeak* is the other, but you don't need me to tell you that).

If you're expecting another *Robocod*, however, then prepare to be shocked. *Operation*

(Left, top) For the most part, James will spend most of his time collecting moons. (Left) At the end of each level is a transmitter, which has to be destroyed.



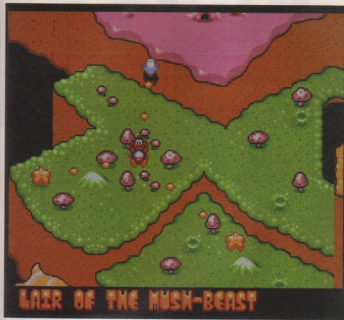
James' super Gravity Boots allow him to stick to any surface—even if that means hanging upside down! This makes for some very strangely designed levels!



Just because you can't see anything, it doesn't mean that there's nothing there. There are hidden blocks and switches all over the level, and sometimes just jumping through the right airpipe can reveal a platform of moons or a new way across the level.

Starfish couldn't be further from that original smash. *Robocod* was far more in tune with Mario than this game, which features more than a tip of the hat to *Sonic The Hedgehog*, if

only down to the intense speeds this runs at. However, before I get you all excited over the game itself, how about a bit of the plot to get you really moving?



HELLO PUSSY-CATFISH

Doctor Maybe, the ever-present enemy of F.I.S.H., has been keeping quite a low profile lately, ever since being defeated at the end of Robocod. Agents were put on his tail after the battle at the Toy factory, but he soon slipped surveillance.

The next thing of any importance to happen was the disappearance of a NASA Space shuttle. Maybe held a secret meeting in the desert, from which a large flash was seen streaking heavenward.

Only one conclusion can be drawn — Maybe has taken the shuttle and set up a base on the moon! What else can F.I.S.H. do but send their top undercover agent to that large ball of cheese in the sky to track down Maybe and close down his operations for good.

In true secret intelligence style, Pond has been decked out with all the latest equipment, such as boots that allow him to move without the discomfort of reduced gravity and micro-sized breathing apparatus that let him run around freely in an airless environment.

As always there are dozens of items left lying around for him to pick up and use to his advantage,

provided you can figure out where to use them.

SHAKEN NOT SHSTIRRED

You don't need me to tell you that Operation Starfish is a platform game, but what a platform game it is! Easily the biggest seen on the Amiga, there are over a 110 levels to

play around with, and each one is absolutely huge, easily 20 to 30 screens long and who knows how many high. You'll find almost no similarity between them either. It's not as if you can work out a strategy for completing levels like you could with Robocod. The only thing that remains the same about each level is the fact that you start at one end and somewhere near the other end is a transmitter that needs to be activated by collecting a secret number of teacups, and then destroyed with a single punch. The whole thing is held together with an enormous map which, in true console fashion, grows as you work through it. At the beginning, there is only a small section and a single level displayed. Complete the level and the path to the next one is shown. Interestingly enough, only part of the 111 levels in the game need to be completed to reach the end. Depending on how

much of a level you complete when you reach the end — for example, if you only collect the bare minimum of teacups to activate the transmitter, instead of all the teacups on the level — then more than one path can be displayed. Depending on how you play, there are literally dozens of ways to work through the game, and the only levels you need see twice are the very early ones.

As I've already said, this game takes a lot more from, say, Sonic than it does Mario. Sure, there are still lots of hidden blocks to head-bang against, and there are plenty of enemy sprites to leap upon and destroy with your feet, but the whole thing is considerably faster than the last game. In Robocod he rolled along at a leisurely pace most of the time, occasionally building up speed when he came down a slope. In Operation Starfish, James has a gearbox. You

start the game in 'walk' mode, where he moves around at a controllable rate but can't climb the sides of mountains.

Pressing the space bar takes him into 'run' mode, where no surface is too sheer, even hanging upside down.

Yes, Pond's boots recreate a field of gravity, but they do it on any surface, not necessarily the one that forms the crust of the moon.

Remember, this time Pond isn't racing around inside a conveniently-designed building. This is the moon we are talking about, and you couldn't hope for a more uneven surface to run around on. Still, unless you actually jump, Pond sticks firmly to the ground he's walking on, and as a result can often end up running upside down, up the side of a wall and even round and round a single block if you aren't careful.

All this has made for some very clever level design, and Chris Scirelli stands to be heartily congratulated for this. A finer designer of platform games has never walked this earth, in my opinion. Even though the game is so large, you are very rarely left wondering where to go next. Every screen is packed with clues as to what to do, even if said clues aren't particularly blatant. A tree might extend above the top of the screen, or you might come across a blank wall with a considerable amount of open space in front of it. It doesn't give the game away, but it does add a very nice puzzle element to what is already a superb game.

Take the first level, for example. Right at the very start there is a block just hanging in mid air. Leaping off it



As you race around each of the levels, there are all sorts of goodies waiting to be discovered. Here is just a selection of the toys on offer.

UMBRELLA

Very handy for crossing large spaces, the umbrella slows Pond's descent to an almost standstill, allowing him to make far longer jumps than ever before.

GATEAUX GUN

One of the only real weapons in the game, this fires a selection of different fruit, depending on the number of power-ups you have collected for it. It starts off firing bouncing apples, but as you increase its

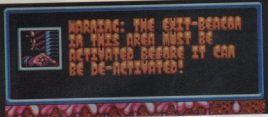
capabilities, you can work all the way up to homing cakes. This gun is handy for clearing a path along the ground, but needs a little practice to make good use of it when in the air.

DYNAMITE

Can be thrown at enemies, or especially at large boxes of TNT. A short fuse means that it will explode shortly after being thrown, so you best get out of the way as quickly as possible.

CHEESE

Ever fancied taking a piece of moon rock home with you. This cheese can be thrown at enemy sprites as a weapon, or can be used as a stepping stone to allow Pond to reach higher platforms.



accomplishes nothing, nor does hitting it. Yet running along a bit you find a bomb. Drop the bomb on the block and when it explodes, it takes the block with it, opening up a wormhole to a secret bonus room. There's a prize of five games of your choice to map out all the secret locations in this game!

means that it will take some people weeks before they see half of it. There are enemies just as tough as Pond, and if you can get through level two without losing energy within the first fifty times of playing the game, I'll be very surprised. It isn't frustratingly hard, though, and that's partly what makes the game so addictive. Whenever you lose



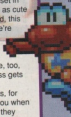
O SOLE O MIO!

Visually, the game is wonderful. Although it is very different to *Robocod* and *Aquatic Games* in that it is nowhere near as colourful (but what do you expect when it's set in space?). It also doesn't seem as cute as the last two games. Instead, this is a tougher, meaner Pond we're seeing. He's a fish of action, not silly little dances and cute expressions. There's bags of character in the game, too, although some of the cuteness gets used against the player.

Take the sweet little chicks, for example, who rush to meet you when you walk near them. Happily they waddle across the landscape, until they reach your feet, at which point they explode taking some of your energy with them. Gits. One thing this game is, though, is very, very tough. The size of it alone

JAMES POND - THIS IS YOUR LIFE

Join our Pond expert, Smokey McErl, as he takes a nostalgic look back at the history of this incredibly successful computer character.



JAMES POND

It all started as a tiny little platform game, with a fish who swam around a lot and rescued other fishes. Ershelie CU AMIGA Dep Ed Jon Sloan swore by this one, thinking it to be the best thing since sliced bread, while current Dep Ed Lisa Collins is right behind him on that one. Of course, looking at it now it does all seem quite primitive, with little of the charm and character that have made Pond such a leading character, but at the time, well, what can I say.

ROBOCOD

The game that made the fish, Millennium really hit the nail on the head with this one, taking the Mario fever that was sweeping the land and creating the perfect game with it. Dressed in a metallic body suit, Pond could extend his waist vertically to enormous proportions, allowing him to reach high platforms and other interesting things in the sky. He had a whole selection of vehicles and gadgets to play with, and one of the most whistle-able soundtracks ever heard in a computer game.

AQUATIC GAMES

Bit of a no-no, this one. It looked great, and played well, but there just wasn't enough game in there to keep Joe public interested. *Aquatic Games* featured all sorts of cute cuties and cuddly characters, but the sight of Pond in shorts just didn't leave much for the imagination.

energy or a life, you know why and you know you could have avoided it. There are no hidden, nasty surprises, and the controls are good enough to allow you to fly through the early levels.

FLIPPER GREAT!

The ultimate follow up? I think so. Millennium have the Pond series

down to a fine art now, and I should think so too considering the number of platforms that Robocod got put out on. If you've seen the incredible Megadrive version of this game, then you'll be happy to know that this is identical.

An amazing game - it's just a crying shame that non-AGA owners will have to miss out. **2D**



AGA ONLY!?!

Yep, I'm sorry to have to tell you this, but James Pond 2 - Operation Starfish will not be available on anything but the A1200/A4000 series.

The reason for this? The game is just far too big to fit on the typical A500 set-up. There is no way the levels would ever fit on a 1Mb machine, and rather than take a risk on ruining the game by cutting it down, Millennium have cancelled the A500 version. If you really want to see it on your non-AGA machine, then get your 2 Meg upgrades now, and start petting Millennium.

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CONTROLS: JOYSTICK
NUMBER OF DISKS: 1
HARD DISK INSTALLABLE: No
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GRAPHICS *****85%
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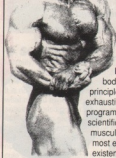
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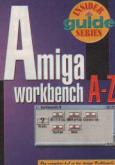
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SYNERGY

Are Black Legend showing the console market that the Amiga is still good for a few more original puzzle games? Tony Dillon looks at *Synergy* - a brilliant double pack of two very different games.

The presentation may be fairly monochrome, but there are some attractive images to catch out.



Game number one - *Statix*. Take *Columns* - the Tetris variant that had more in common with *Connect 4* than anything else - and stick it on a see-saw. That's the only way I can think of to describe *Statix*, one of the most addictive puzzlers I have ever played. Okay, so it might not look like much on a screen-shot, and your first thought could well be the same as mine - it looks like a *Gameboy* title - but believe me there is a lot more to it than that.

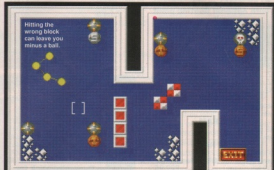
The game starts with a brief description of what you need to do to finish the current level (build a certain number of lines in varying directions), and then all hell breaks loose. Pieces appear at the top of the screen, and you have a couple of seconds to position the block before it drops to the bottom. There

The skull blocks can't be removed, so you need to be very careful where you place them.

Who's been playing particularly badly then? One more block on the left, and this clown's had it.

are five different types of block, and getting three in a row removes them from the pile. Essentially, all you have to do is make sure that neither side of the see saw touches the ground, which can be extremely tricky when you have the whole thing heavily loaded, and then you drop a block that removes half a dozen pieces from one side. To play this game well, you need to stay half a dozen paces ahead of yourself.

With various ways to play the game, from a simple one-player set of levels to a two-player challenge, this will keep you hooked for ages. *Statix* is not a very exciting game to look at, but as far as I am concerned it is a very exciting game to play. Admittedly, there are people out there to whom this won't appeal at all. However, if you loved Tetris, you'll get a real kick out of this.



MEGAMOTION

This is another unusual puzzle game, as far away from *Statix* as you can get. If you can remember US Gold's *E-Motion*, then you'll have a fairly good idea as to what this game is about. You start off with a group of two or more balls at the start of a small maze and you have to get them to the other end. To do this, you fix one of the balls in their current position, while the others orbit it in a geometrically satisfying way. To move around, you need to change between balls by clicking on them when they are in the position you want. It might sound complicated, but in practice it's quite simple. One way to explain it would be to imagine a line, with three points (A, B and C). You have two balls, and ball 1 is fixed to point A. As ball 2 swings around, it passes over point B. If you change balls while ball 2 is over B, then ball A will swing around, passing over points A and C. Get it? Well, I would draw you a diagram, if I could.

The end result of this mind bending maths is a fairly addictive and extremely tough puzzle. There are all sorts of traps and spikes dotted about the levels that will destroy your balls on contact, and if you have less than two, you lose a life. It's that simple. What else can I say, except that it's great fun, and you could do a hell of a lot worse with your money than buy these two games!

This level is more than just juggling an awful lot of balls?

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GENRE:	PUZZLE
TEAM:	IN HOUSE
CONTROLS:	JOYSTICK
NUMBER OF DISKS:	2
NUMBER OF PLAYERS:	2
HARD DISK INSTALLABLE:	NO
MEMORY:	1Mb

GRAPHICS	*****+71%
SOUND	*****+82%
LASTABILITY	*****+92%
PLAYABILITY	*****+89%

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Have Ocean Software come up with their own Amiga Sonic beater? Tony Dillon isn't so sure.

Ocean have been very quiet recently as far as the Amiga is concerned. Even though they hold in their hands two of the most awaited Amiga games to date (*Inferno* and *TFX*), for quite a while now we've had little cause to chase the cheeky Mancunians for review software. So quiet were they that I almost didn't hear this package drop through the letterbox. While Millennium are jumping up and down with joy at the release of *James Pond 3*, Ocean are whispering that *Mr Nuts* has arrived.

CUTESY

Mr Nuts is a cute little squirrel who has to save a planet from the clutch of evil chickens from outer space. Okay, so the plot might reek a little of *Alfred Chicken*, but we'll gloss over that for the moment.

Using all his skill and judgement, *Mr Nuts* has to work across the huge maps that make up the planet, systematically closing down all the chicken bases while helping his friends *Mr Hitpoint*, *Mr Rabbit* and *Mr Pigeon*.

He does this in two ways. Firstly, there's the scrolling platform bit, which looks absolutely gorgeous in these screenshots, you have to admit. Bright, vivid colours, large

Between levels these spaceships fly around for some strange reason.



Right: the tiny screen makes up most of the game.

cute sprites, and if you could see that silky smooth animation - oh, it would take your breath away. This is only a small part of the game, however.

The real game happens in a *Zelda*-style scrolling walkabout around the map, finding bombs, opening chests, talking to characters and so on. For some reason this all takes place in a window that takes up no more than an eighth of the screen, which is incredibly frustrating. *Mr Nuts* is, basically, a mapper's dream, as they mark down all the paths with their twists and turns along the way. Using teleporters, ladders, rafts and bombs you work through the map until you close down an island. Then

it's off to the next level.

Looking at the game, it's quite obvious that the whole thing is perfect for the younger market. The characters are all done in a cute, colourful way. There are no real taxing puzzles and the platform sections are over as soon as they start. This is no justification for the low mark, however.

SHORTY

The relatively low mark I've given it has come about due to the one major shortcoming that *Mr Nutz*, like so many before it, has suffered from: there is very little gameplay. The map section is far too simple to be of any real value to a game-player, and the fact that everything happens on a tiny screen is unforgivable. Why not make it full screen? It would have made all the difference!

It's the platform section where the whole game falls apart. *Mr Nuts* can run at approximately 130 miles per hour. However, levels are only playable if you move at 20mph. Interestingly enough you can belt from one end of the level to the other at top whack in around fifteen seconds and only lose a small

Above: one of the space chickens.

amount of energy. This game will only pose a problem to real games-players if they let it.

Just as well, really, as the colour scheme renders everything in the platform sections little more than a multi-coloured mess. I'm all for using hundreds of colours, as long as they aren't all garish green! What is the point of having a game so colourful that you can't actually tell where the backdrops end and the sprites begin? I was getting hit by things I couldn't see until they'd hit me, and avoiding things that ended up being nothing more than on-screen 'furniture'.

NO GOODY

It's just a real shame that this had to come out at the same time as *James Pond 3*, it really is. Not that I want to get too negative or anything, but there really is no competition. One is a fast, playable platformer with puzzle twists and various other interactive elements, and the other is bright, colourful but ultimately thin and characterless. **CU**

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GENRE: PLATFORM

TEAM: NEON
CONTROLS: JOYSTICK

NUMBER OF DISKS: 3
NUMBER OF PLAYERS: 1
HARD DISK INSTALLABLE: NO
MEMORY: 1Mb

GRAPHICS	*****74%
SOUND	*****78%
LASTABILITY	*****53%
PLAYABILITY	*****45%

Great presentation. Shame about the rest.

OVERALL 59%

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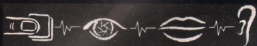
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ARCADE POOL

Quickshot Steve Keen snatches up his Balabushca and rests his sweaty palms on the green baize table once more, as he tests out the latest pool game.

I'm a bit of a pool demon and as such, I was really looking forward to playing this latest super-value release from the Team 17 stable. Call me Mr. Opportunist, but when this month's software was up for grabs I grasped it with both hands and made a speedy retreat to my bedroom with a four pack of Tizer and family-sized packet of smookey bacon crisps. I just couldn't wait to rip the vacuum-packed cling film off it!

POT LUCK

A lot of people can't understand the fascination pool gurus have with thumping a stick of different coloured balls around a cushioned table, but to most it's as addictive as a caffeine-fuelled Quarter Pounder with extra cheese. This version is specially tailored for enhanced Amigas, but will run adequately on most (1Mb and upwards). The inclusion of the British red and yellow ball game, with English rules, is long overdue and, particularly in this mode, the game has a distinct pub feel. The use of a cue that pops up every time you take a shot and actually draws back to the edge of the table is a lot better than other systems, where you just click a mouse button and stand back as the balls start to shoot off all around the table.

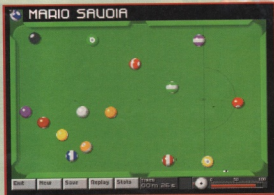
Now, you might think that playing Arcade Pool will be a doddle after hanging out with the big boys down at your local pool hall, but you couldn't be more wrong. The control system is simple enough, just drag the cursor over towards the ball you want to hit and place it down. In certain conditions and on certain levels a staggered white line will appear showing you

exactly where the cue ball will go after it has made contact with the pack. This is very useful for positioning shots as you can quite accurately judge where the white is going to stop by watching the animated shadow that follows the path of the white before you take the stroke. Down on the bottom right of the screen are the power bars and a white ball with a tiny cursor in the middle of it. You can click on this and drag it around inside the white to add side and screw-back, an acquired skill in both real pool and the computer variant.

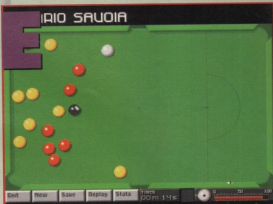
Simple to appreciate, yes, but incredibly difficult to master with any degree of accuracy. For some reason I had more success with these 'professional' skills during the American games. I don't know if the pockets were slightly bigger on the Yank tables, as they are in real life, but a greater percentage of shots that I took whilst on the blue baize table, were snark than on the green.

IN THE BLACK

Loaded with options, the game has just about everything a would-be



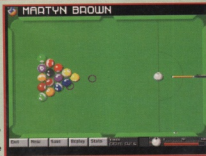
hustler could want. Different table frictions, skill levels, shot aiming aids and set ups are just a few. Most notable are the eight different versions of the game you can play, such as 8-Ball UK, 9-Ball US, Straight Pool and Survivor or Killer, as it's more commonly known in pubs. This is where you get together with up to eight mates and take turns to pot any



Oh dear, oh dear, what a mess!

ball. Every time you miss a pot you kill off a life and the last player left in the game wins. There's even an option to try out those fancy trick shots and a custom pool game that allows you to practise plays.

Aside from the obvious versatility of the game, not everything in the garden is rosy. The control method, a cross-haired cursor affair, requires absolute pin point accuracy if you want to avoid ricocheting the balls off the cushions in unexpected pinball fashion, and it takes a frustratingly



First class computer assisted breaks are no problem with Arcade Pool.

different pool variations and have the patience to learn the game again from scratch, it's quite a laugh. After watching the computer pot its fifth ball in a row off four cushions was left feeling well cheated! Therefore, to get the best out of the game play against a friend. **CU**

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GENRE: SIMULATION
TEAM: OUT OF HOUSE
CONTROLS: MOUSE
NUMBER OF DISKS: 1
NUMBER OF PLAYERS: 1-8
HARD DISK INSTALLABLE: NO
MEMORY: 1MB

GRAPHICS *****83%
SOUND *****79%
LASTABILITY *****75%
PLAYABILITY *****78%

“Humungous value for money for pool fans.”

OVERALL 81%

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Scenario

Prison

Challenge

and gather food, find water, make your own clothing and weapons, deal with health hazards and fight off predators, test your survival skills to the very limit, and get the hell off that planet!



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Supervision are out to prove that boardgames don't have to be bored games.

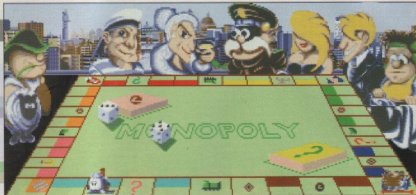
Tony Dillon gets out his dosh and dabbles in real estate.

I have to say, I am one of those people who actually enjoys a good game of Monopoly, as long as it doesn't go on for any more than an hour and the people I'm playing with know the rules. However, this situation is very rare as many people will point out. That's why I was so pleased to see this little offering from Supervision. Aha, I thought to myself, here's my chance to waste my whole evenings going round and round a small board trying to be a big shot, and I won't have to wait for anyone to take their turn, plus all the fiddly rules about things like mortgages and auctions can be figured out by the computer. Not quite heaven, but a good time to be had by all.

CAR, BOOT...

If you've never played Monopoly, then I have to say you've missed out on something that everyone should have the chance to enjoy be subjected to. It's a game about buying and selling property. Various streets around London have been divided into groups called Monopolies, and the aim is to buy as many of them as possible, develop the areas by building houses and hotels on them, and then bankrupt everyone else in the game by charging them a ridiculously high rent every time their counter lands on a square owned by you. Run out of money and you can sell property to the bank. Run out of property and money, and you're out of the game. Dead simple isn't it?

Or at least it is when described like that. Like I said, there are all manner of fiddly little rules that many choose to completely ignore, and a computerised judge and jury seems like the obvious thing to include in a game like this. SO WHY ISN'T THERE ONE! The computer asks you to do very little, leaving you to your own devices to figure out what's going on. When someone lands on one of your properties, rent isn't charged immediately.



MONOPOLY

(Left) All the usual statistics are in there. (Below) Everywhere you go, you get a little animation of your piece arriving.



No, you have to select the icon to demand rent, but you only have a couple of seconds to do it in, so you've got to wrestle the mouse off the previous player as quickly as possible.

TOP HAT, BOAT...

The presentation of the game isn't at all bad, if a little simplistic for the



I'm sorry, but this doesn't look much like Kings Cross. There are no furry things near there.

presumably adult audience this game would entice. A collection of slightly amusing characters sit around the board and animate slightly when it's their turn. For each move you see a little animation of the piece arriving at the destination on the board. Okay, so the places don't really look like that, but at least the London skyline is realistic.

So what's with the low mark then, you might ask. After all, Monopoly is a proven game, and one that has riveted families for years. Surely there can't be anything wrong with a computer version? Unfortunately, there are a few things about the game that I don't like, the biggest one being its speed of play. Okay, so Monopoly was never a fast paced game, but a lag of a second between selecting an icon and it actually registering just isn't on. This renders the game very testing to play. There isn't a lot going on at any one time, and the rules of Monopoly aren't all that hard for a computer to follow, so I can't see any reason for the pauses between every action. At times, I wonder why software houses put out games like this. Why can't they see that there are

obvious playability flaws which spoil the game? I know that it's all too easy to get wrapped up in production to the point where you can't see the wood for the trees, but if a game veers too far away from the original concept and mars your enjoyment, then all the effort will have been wasted.

DOG AND IRON

Monopoly has all the makings of a great computer game. I have played a version of it on a Macintosh and could happily recommend that, but this Amiga version just falls between two stools. On one hand, it's an adult board game, full of terms and rules that younger players wouldn't have the patience for. On the other, it's been presented in a way that will best appeal to a young market. As a result, it doesn't seem to fit anywhere. **CU**

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TEAM:	IN HOUSE
CONTROLS:	MOUSE
NUMBER OF DISKS:	1
NUMBER OF PLAYERS:	8
HARD DISK INSTALLABLE:	NO
MEMORY:	1Mb

GRAPHICS	*****78%
SOUND	*****41%
LASTABILITY	*****68%
PLAYABILITY	*****65%

It could have been so good, too.

OVERALL 49%



Goalmouth action in all its glory, thanks to the replay option.

Football fever hots up some more as Sierra release their own entry into the computer game World Cup, and I'm pleased to be able to report that it's a very competent and extremely playable arcade soccer game. Falling somewhere between *Striker* and *Sensible Soccer*, the game is based around the World Cup draw itself, and one of the most instantly playable arcade football engines yet seen.

Let's begin at the beginning. Although the game is based around this year's World Cup, it is by no means an official licence. As a result, you can either play as a team in the official World Cup draw, or take part in a random one. Up to eight people can play at once, each selecting a team and playing through their respective groups until victory or rejection. Naturally, the team you decide to play has a large bearing on whether or not you actually stand a chance of getting through – Italy are far better team than England, for example, and because of that you are going to have a harder time with the latter. It's an interesting way of setting the difficulty level for the



The kick off. See how the Ref actually blows his whistle!

game, and one that works surprisingly well.

Before each match, you are presented with the only managerial aspect of the game – the chance to alter your squad. You are shown all the players in your team, including all reserves and all the relevant statistics. If you like, you can move players around by simply clicking on the one you want to move, and then clicking on the person you want to swap them with. Adding or removing parts

SIERRA SOCCER

Sierra? Doing a football game? And it isn't an adventure? Tony Dillon is intrigued – he checks it out.

Team Selection

Team	Pos	Def	Mid	Str	Goal
1. IT	100	100	100	100	100
2. IT	100	100	100	100	100
3. IT	100	100	100	100	100
4. IT	100	100	100	100	100
5. IT	100	100	100	100	100
6. IT	100	100	100	100	100
7. IT	100	100	100	100	100
8. IT	100	100	100	100	100
9. IT	100	100	100	100	100
10. IT	100	100	100	100	100
11. IT	100	100	100	100	100
12. IT	100	100	100	100	100
13. IT	100	100	100	100	100
14. IT	100	100	100	100	100
15. IT	100	100	100	100	100
16. IT	100	100	100	100	100
17. IT	100	100	100	100	100
18. IT	100	100	100	100	100
19. IT	100	100	100	100	100
20. IT	100	100	100	100	100
21. IT	100	100	100	100	100
22. IT	100	100	100	100	100

England

Pos	Def	Mid	Str	Goal
1. IT	100	100	100	100
2. IT	100	100	100	100
3. IT	100	100	100	100
4. IT	100	100	100	100
5. IT	100	100	100	100
6. IT	100	100	100	100
7. IT	100	100	100	100
8. IT	100	100	100	100
9. IT	100	100	100	100
10. IT	100	100	100	100
11. IT	100	100	100	100
12. IT	100	100	100	100
13. IT	100	100	100	100
14. IT	100	100	100	100
15. IT	100	100	100	100
16. IT	100	100	100	100
17. IT	100	100	100	100
18. IT	100	100	100	100
19. IT	100	100	100	100
20. IT	100	100	100	100
21. IT	100	100	100	100
22. IT	100	100	100	100

of a team (attackers, defenders etc) will automatically change the formation you play in. It's a shame you can't define team tactics, such as

playing aggressively or close marking, but perhaps Sierra thought they would keep this one as simple as possible.

Then it's out onto the pitch, where the game really comes into its own. Whether you've an A500 or an A1200, you'll be amazed at the spectacular animation of the players on the pitch. Over 4000 frames of animation have the players running, jumping, sliding, falling face down and there's even a fully mobile referee, complete with working whistle.

A1200 owners get the benefit of a full 3D crowd too!

The game is viewed from about 45 degrees looking north, similar to the *Striker* viewpoint, except the

Here's the England squad. Yes, the names have been misspelt intentionally.

sprites are roughly the same size as those in *Sensible Soccer*. The end result is that you get a very wide view of a convincingly 3D pitch. Of course, it looks like one of the goals is larger than the other, but that's just perspective.

The set pieces have been 'borrowed' from *Striker* and games of that ilk too. When the ball goes out of play, or a free kick is awarded, all the players dash to their respective positions, and the person taking the kick/corner/throw in is shown with a curved line stretching away from them. This shows the projected path of the ball, and can be moved around

with the joystick. If the computer player is taking the set piece, you can move your wall around to match their

Each set piece is played in the same way, using a curved line to show the ball's trajectory.

- WORLD CHALLENGE EDITION

kick positioning, and hopefully stop them from walking a goal.

Playing the game is incredibly easy, far easier than the *Kick Offs* and *Sensible Soccer* of this world. The reason being that there are none of the combinations and strange joystick positions of those games. The whole control method is far simpler, which means you can spend more time working on team play than just keeping the ball under control. Of course, it's the learning curve that make *Sensi* and *Kick Off* the long players that they are, and naturally there will be doubts that the instant gameplay of this one will spoil the longevity. Have no fear, as *Sierra Soccer* is just as addictive and just as much fun.

It may not have a big licence behind it, but *Sierra Soccer* is still great fun to play, and well worth adding to any collection. **CU**

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TEAM:

CONTROL:

NUMBER OF DISKS:

NUMBER OF PLAYERS:

HARD DISK INSTALLABLE:

MEMORY:

GRAPHICS *****92%
SOUND *****81%
LASTABILITY *****86%
PLAYABILITY *****89%

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PART

1

Start off by snapping off the rung to the left of the walkway and use it on the door to the right. When you go back inside, go down the stairs and through the door to the right. Use the circuit board on the various pieces of junk until you get Joey activated. Chat with Joey, then step on the lift. When Hobbins arrives go to the right quickly, open up the cabinet and, once you've grabbed the spanner, return to the lift room. Examine the droid, then talk to Hobbins. He will tell you what is wrong with the droid. Then tell Joey what's wrong and he will fix it.

When the droid activates the lift, quickly jump down the hole. When Joey arrives ask him to open the door. Search Reich's corpse and take his belongings. Go right, then right again into the building next door which is the

factory. Chat with Anita and when Lamb arrives, tell him you're security. Now go right, put the spanner in the cogs and then take it back out again. Go left, examine the droid, and use the spanner on it. Chat to Joey about a new shell and then go right. Try walking through the top-left door, then ask Joey to check out the storeroom. When he returns, tell him to disable the fuse box and when he has done this, walk into the storeroom. Pick up the walkway and get the small lump of putty beneath it. Show this to Joey and he will reveal that it is a plastic explosive.

PILLOW TALK

Leave the factory, go to the building to the far left of the walkway – this is the steam room. Inside, use the spanner on both of the buttons on



Reich seems pretty CUI
UP about it!



the boiler. Ask Joey to press the button on the right and simultaneously press the button on the left. When the old man leaves, go to the left of the room and pull the switch.

Remove the light bulb and put the plastic explosive in the socket. Pull the switch again and two more switches will be revealed. Pull the one on the right downwards.

Now leave the steam room and go to the lift near the factory entrance. Use Reich's card in the slot and enter the room. Move the pillow and pick up

the holographic projection and ask Joey to persuade the hologram to open the door. Go inside and chat with Burke.

Offer Burke your testicles(!) and he'll give you the Schreimbann Port. Chat to Burke some more about everything. Leave the surgery and go right until you reach Anchor Insurance (next to Travelco). Examine the statue, then chat with the man about everything. Be sure to enquire about a special policy and tell him that Burke sent you. When the man leaves, ask

password, go left, pick up the password, go up, put down, go right, down, up, put down, left, pick up, up, right, down, right, down, put down, up, then exit the room. Once through, collect the bust and the book, now Decrypt your two new documents. Now Disconnect.


Use Reich's card with the LINC machine and select 4. Enter the security number then select 0. Read all the documents then select 0. Now select 2 and 2 again. This gives you special authorisation and you should now exit the system. Use Reich's card

then through the top left exit. Use the dog biscuits on the plank and wait for Mrs. Piemont and her dog to turn up. When the dog starts to bark pull the rope. As the guard gets distracted, sneak into the cathedral. Go through the top left exit and open all the lockers, then leave and go back to the top level via the lifts. Enter the factory and go to where you last saw Anita alive. Wear the radiation suit that's hanging in the middle locker and go right.

NUCLEAR REACTION

Access the control panel and select 2. Exit, and enter the reactor room. Just to the right of the core you'll find Anita's card on the floor. Pick it up, leave the room and close the door with the control panel. Go left and change back into your coat. Leave the factory and go back to the LINC-space interface via the Security Station's lift. Use Anita's card in the interface slot and sit in the chair.

Once in LINC-space go right and use the Blind program in your inventory with the eyeball. Quickly go into the upper exit, go up again and use the Playback program with the well. Go through the upper right exit, use the Blind program on the eye and pick up the tuning fork. Now disconnect.

Leave the security buildings, go to ground level and talk to the gardener outside Mrs. Piemont's house. He'll tell you that his name is Eduardo. Go left and left again, until you reach St. James' club. Go inside, walk up to the jukebox and activate it. When Colston, the club manager, gets up, quickly go over to his table and grab his glass. Examine the metal plate next to the door at the back of the club, then leave. Go to Burke's Bio Surgery via the lift, go inside and give Burke the glass. Leave and go back to St. James' club. Once inside, go the door near the back and use the metal plate. 

NEXT MONTH

Okay folks, you're getting there. If this lot hasn't helped you finish *Steel Sky* then tune in next month for the final breakdown.

the magazine. Leave and continue past the lift you have just been in, going right, you can now enter Travelco. Chat with the man there as much as possible, hand him the magazine and pick up the ticket. Leave and go back to Reich's apartment door. Wait for Lamb outside and chat with him when he arrives. When he mentions going away, hand him the ticket.

Go back to the factory via the lift and chat with Lamb again. After the tour he will leave you outside the store-room so now go right and talk to Anita. When she asks for your ID card, hand her Reich's. Talk to her some more. Leave the factory and use Reich's card with him. LINC terminal. Select 4 and enter the code from your security manual in the game box. Select 2, then 1, then 1 again, then 2 again. Exit the terminal and wait for Lamb. Chat with him and he will authorise you to enter his apartment.

BIODEGRADABLES

Before going down in the lift, locate the cable to the right of the screen and ask Joey to cut it. Go down in the lift and pick up the cable. Now go to the apartment and use Reich's card in the slot on the right. Go into the apartment and use the machine on the right. Pick up the video on the left and leave. Go to the far left of the long walkway and you'll find Burke's Bio-Surgery. Go inside and chat with

Joey to use his welder on the Anchor. Pick up the anchor when Joey has finished. Leave, and make your way to the top level again.

Now go into the building opposite the steam room and you'll find yourself back at the starting position. Go up the stairs and out of the door. Use your anchor with your cable to make a grappling hook and use it on the security sign on the wall of the facing building. Go through the door to the right and use Reich's card in the slot next to the interface. Sit in the interface and, once in LINC-space, pick up the ball. Now head out of the right exit and use the Open program in your inventory on the carpet bag. Use Decompress on the compressed data and Decrypt with the document.

FIND YOUR WAY

Go through the right exit. Use one of your password programs with the floor and then go right. Put down another

in the slot next to the lift and enter the lift. You are now in the Security Station. Leave, and make your way to the other lift. Use it and then go left to the next lift. Your card will now be able to access this lift, so use it. At the bottom, wait for the fat woman with the dog. Chat to her and then go left and chat with the club doorman. Find the fat woman (Mrs. Piemont) again and ask her to sponsor you.

Now go as far right as you can, until you come to the screen with the boy and the gardener. Press the button by the door on the right. Once inside, chat with Mrs. Piemont. When she makes her telephone call, place the video in the VCR. While the dog is distracted, get the dog biscuits from his bowl. Leave. Go through the bottom left exit and examine the wooden double doors. Use Reich's card on the lock and go through the door. Pick up the secateurs and leave. Go right,



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BUDGET

Steve Keen checks out some top-class titles on a shoestring budget. If only everything in life was this easy!

LURE OF THE TEMPTRESS

HIT SQUAD OUT NOW £14.99



Graphic adventures seem to be ten a penny on the Amiga now, but there was a time when you'd have to walk 10,000 or more miles to find a decent point and click romp. The *Secret Of Monkey Island*, from LucasArts, was the one that REALLY started it all, and hot on its heels came *Lure Of The Temptress*, rich in atmosphere and loaded with new ideas on how to present an adventure.

You play Dermot, imprisoned in one of Turnvale's darkest dungeons while an evil race of marauding mutants, the Skorf, led by the machiavellian Sorceress, have just hit town. In classic Great Escape mode you've got to figure a way out of the hellhole and find a way to finally rid the land of the evil monsters.

Lure Of The Temptress placed big emphasis on its character intelligence system, called Virtual Theatre. The principle was simple. All the characters that you meet on screen actually existed within the game as independent people. So, rather than disappear from the game as soon as they're out of sight, they continue to wander around and you find yourself bumping into them later on. They may not be doing anything particularly interesting, but it's nice to know that a guy you spoke to about the weather in the courtyard a few hours ago could very well end up sitting next to you in the pub at the end of the day. You could even pick a character and follow him around from one place to another – they just never vanish. More importantly, you can actually ask characters to perform tasks for you and they'll wander off and catch up with you later, wherever you may be.

In short there's tons to do, loads of people to meet, scores of cunning puzzles to solve and a detailed game environment to interact with. The game's also littered with impressive animated sequences that cut in to show you the action in more detail. *Lure Of The Temptress* stands the test of time more than most, and for me, still ranks up with the very best looking and playing graphic adventures around.

87%

JIMMY WHITE'S WHIRLWIND SNOOKER

HIT SQUAD OUT NOW £14.99

A calmness descends on the crowd. The Hurricane lines up his next shot – red ball, top pocket. He draws back his cue, pausing for a brief second to let a tiny gnat remove itself from the green baize. Suddenly the red ball bursts into life and a huge beaming face appears on its surface, shortly followed by a pair of waving hands that jut out from its sides. Hang on a minute! This isn't *Pot Black*. No, it's *Jimmy White's Whirlwind Snooker* and it certainly did make a few heads turn (indeed spin) when it was first released.

Even today Jimmy White's game is the most accurate snooker simulation you can get on any format. Every conceivable tool is here for the using to make your turn at the table as realistic as possible, not to mention the weird creatures that mutate from the balls if you take too long over a shot. In fact some have said that there are just a few too many controls to master – the game is certainly not for those who are afraid of giving their mouse a good working over. The control menu can be displayed either at the side of the screen or, much better and more discretely, running along the top. You can rotate the table around 360 degrees, view it from any elevated angle and even zoom in and out on any ball.

Different tournaments and championships are available, as well as trick shots and a choice of computer opponents that vary in skill. My advice is to start off as low down this title as you can as it takes a lot of time to master. The basics are simple, but applying side to shots, spins and screw-back can take hours to perfect. The table is massive too, but once you've figured out how to tilt and rotate the beast you'll soon overcome the problem of not being able to actually see the pocket that you're aiming for.

Jimmy White's Whirlwind Snooker does look slightly dated in the graphics department and the sound is distinctly smelly, but it's still the best snooker game available and, let's face it, no one programs 'em better than Archer MacLean!

86%

DUNE

HIT SQUAD OUT NOW £14.99

I've lost count of the amount of times I've settled down and tried to get my head around *Dune* the movie. If only they'd put it on TV earlier in the afternoon I might be able to stay awake long enough to see the end credits! So, when the game of the film was first released, I didn't really go out of my way to give it a whirl, but now I realise what I missed.

I won't go too far into the plot, suffice to say that the game is a lot easier to follow than the film. You take the role of Paul Atreides, son of a Duke who lives in the palace on the planet Dune, which is under constant threat from invaders who crave Spice, its precious mineral that aids space travel. It's your job to make sure that there's a constant stock of the stuff in the warehouses and that you recruit enough people to mine the substance.

You can travel around the planet in a number of ways. At first by ornithopter, a mechanical insect style aviation machine that skims the desert surface and flies you to your destination. Sooner or later you'll have to put venture out on foot, but take care, stray too far into the desert without a life support system (a 'stillsuit') and you'll fry, or worse still, be consumed by one of the giant worms that burrow under the sand and burst up through to the surface, taking you by surprise.

Graphically, the game goes for basic-looking locations and backdrops, but some of the desert scenes, animations and travel are visually stunning. Of particular note is the cunning use of tinted colours that give the illusion of turning night to day. Best of all though is the music. So often in adventures this is put to the back of the list of priorities, but in *Dune* it's orchestrated with great style and atmosphere (just like the movie). The game's easy to control too, with little click swapping and very fast updating, allowing you to move between locations quickly and with minimum fuss.

Dune in 1994 is well worth giving a whirl and if, like me, you never could get along with the film or books, don't fret, this adventure is much more accessible.

80%

SLEEPWALKER

HIT SQUAD £9.99 OUT NOW

Sleepwalker was just one of the fan-tabulous, pop-mongous, dream-tubulous products that did the rounds when those big hearted, smashing, Comic Reliefers were in full swing. The game even features the voices of Harry Enfield and Lenny Henry in the intro sections.

Not a company to go against tradition, Ocean Software opted for a mildly original platform affair for its brief stint with charity. The game centres around a young lad named Lee who is a compulsive sleepwalker and who, one night, jumps out of the window for a midnight stroll across the rooftops. Fortunately, he's spotted by the family dog, Ralph, and the hound gives chase, trying to keep the yowl out of danger and guide him back to bed.

Each level presents different obstacles for the dog to negotiate. Lee's in a deep sleep, but every time he comes into contact with a particularly dangerous object he'll instantly be woken up and die of shock. However, Ralph is as smart as a dog with two heads and can employ any number of tactics to keep the youngster dozing. By running ahead and leaving Lee behind, Ralph can disarm several of the traps that could harm Lee. For instance, Ralph can close sewer drains, cover manholes in the road and knock out nightclub bouncers. After you've eradicated all possible dangerous obstacles you must run back to collect Lee and guide him to the level's exit. It's not all plain sailing from there though, as you still have to turn the youngster around and make him walk in the right direction. Some parts of the game require you to make a human bridge out of Ralph to prevent the boy falling to his death.

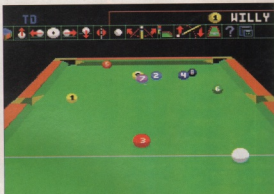
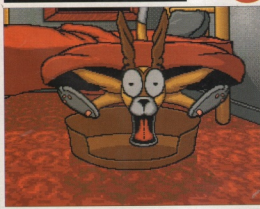
Quite a nice idea for a game, but the whole thing appears to have been a bit rushed (due perhaps to the deadlines imposed by the original Comic Relief launch date) and the game graphics and variety of levels leaves a bit to be desired (although the A1200 specific version has been enhanced). Bonus levels are included, where you guide Ralph around a level collecting balloons for extra lives and special icons. If you collect all the objects in every round you'll be able to see an extra animation when you've completed the game.

Variety of gameplay is what ultimately lets *Sleepwalker* down. Every level's against the clock too, so it's quite normal for you to be sent back to



the beginning of a certain level, after nearly completing it, because the time's run out. As far as I know, none of the money for *Sleepwalker* goes to charity this time round, and without the hype surrounding Comic Relief this is a frustrating substitute for top platforming fun.

70%



POOL

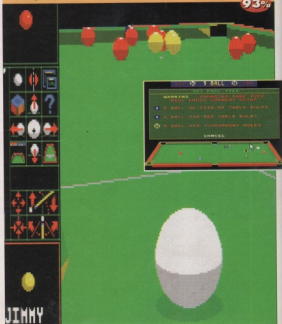
HIT SQUAD £16.99

Not only have the Hit Squad acquired the superb *Jimmy White's Whirlwind Snooker* from Virgin, they've also snapped up the rights to Archer Maclean's follow up, *Pool*. It may not be as comprehensive a game as Team 17's *Archer Maclean's Pool*, but it still contains all the rules for US and UK 8-ball and US 9-Ball matches.

Using the same graphic engine as *Jimmy White's*, with some speed optimisation (believe me, this thing really shifts on an A1200!) with a few minor modifications, the game has the same natural feel and realistic gameplay of the former, with a few minor twists. The big difference comes in the US games, where the balls are spotted, striped and numbered. Sadly, the balls don't actually roll like they do in *Archer Maclean's Pool*, gliding along the table instead, with the numbers always facing you. But then the maths involved in creating rolling balls are beyond the A1200's capabilities. What do you want, realism or speed?

It's a great game, and although it's not very different from *Jimmy White's*, it's well worth owning both just for the variety of game. And at such a great price, too!

93%



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BENEATH A STEEL SKY

I bought the brilliant *Beneath a Steel Sky* from Virgin after reading the review of it in your magazine.

So far in the game I have gone through the security headquarter's window with the anchor and cable. However, when I entered the Interface, the eyeball zaps me when I go towards the exit. The possessions I have are the Charon, the passwords, the Phoenix program and document, the decompressor and the briefing plus report documents. I have also used the decrypter on all of the documents. Jason Russell, Bristol.

Well I haven't actually had time to get my teeth into this game yet, as I've been too busy biting more interesting things, so I rang the help line 081-9648242, (me ringing Virgin's Help Line, that's a laugh for a start!) and tried to explain your problem. The very nice lady at the other end told me you shouldn't have any problems providing all the question marks have been removed from your documents, plus a little man. Well that sounds like an interesting concept I thought. She went on to explain that if you look at the question marks using the magnifier they will disappear. She asked me if you had looked at your little man with the magnifier? I told her that I hadn't liked to ask as it seemed so rude. Is there a little man on your documents? If so, what have you been doing to him? She also said you are supposed to ensure that you are disconnected from the interface. I hope that helps. If not, fear not CU AMIGA has come to the rescue yet again (those heroic devils) there's a solution in this very mag.

CURSE OF ENCHANTIA

I am stuck on the *Curse of Enchantia*, in the Ice World. How do you get into the Castle? I've found the bits of ice sticking out, do you have to play them in a certain order? If so, what is it? Andrew Humphrey, Chipping Norton.

Well I know how I get into castles. I just fly up to the battlements then crawl down the walls until I find an open window, but then I don't suppose you know how to turn yourself into a bat do you?

You are quite correct that playing the pieces of ice is the solution. But you've got to push and pull them in the correct order.

The solution is found by watching the penguins who are walking past in a certain order, and then push/pull the icicles in the same sequence (i.e. shortest to longest). Get that bit right and the door will open.

MONKEY ISLAND II

I have been reading CU AMIGA for two years now and never had a problem worth writing to you about.

Curse of Enchantia: Watch out in case an Enchanter comes around your street cursing his head off!



But times change, and now my dear maiden I've got a few for you concerning *Monkey Island II* that need solving.

1. How do I get the picture of the parrot near the real one?
2. How do I get the book on Governor Phatt's bed?
3. How do I win the spitting contest?

P.S. Please tell me whether your arrival got anything to do with Singsby's departure?
Sigi Van Espen, Belgium.



Swinging around in Monkey Island II. You can swing around and make yourself a monkey too.

Oh no, not more questions about birds looking in mirrors. You know why girls are called 'birds' don't you? It's because they pick up worms! Anyway, it's not the picture of the parrot you need, it's the mirror itself. You can simply buy the packet of parrot chow and then put the picture on the hook near the vain bird. Now you can pick up the mirror.

Go to the library and use the card index to find any book title you like, plus the Joy of Hex and the Pirate Quotations book. Ask the librarian for a temporary card to borrow the books. In the Governor's bedroom, use the extra book from the library on the book on the Governor's bed.

To win the contest you must buy a selection of drinks from the bar first. Mix the blue drink with the yellow drink. Blow the ship's horn, and when the Spitzmaster moves away, pick up the flags and switch their places. Use the green drink with the crazy straw then move to the Fast Lane. Launch your spit when the woman's sash flaps and the wind will give it some extra help. (My God this is gross).

As to the sudden departure of our former editor, Dan Singsby, it was nothing to do with me. On the other hand I'm quite partial to our Games Editor Tony Dillon. Mind you, it's well known that I'm partial to a bit of heavy metal head banging.

GOBLINS II

We are having a little problem with Gobblins II, and it is driving us mad. The items we have collected so far are the stone, the bottle, the matches, the wine and the sausage. We have lit the fire next to the giant, but that is as far as we have got. Please, please help us.

Keith and Ian Worley, Warrington.

I'm not a big fan of Gobblins, but I do like fairies - they are always so beautifully dressed. Why is it that no-one loves a fairy when she's forty? Believe me boys, older girls are so much better.

As all fairies know, giants love a fried egg so obtaining one is your next task. Get Fingus to stand behind the chicken while Winkle picks it up. Once the chicken is firmly grasped, get Fingus to smash it on the head with a sausage and it will lay an egg. (And to think that you thought free-range eggs were cruelly free!) Once you get the fire going, use the egg on the fire.

LURE OF THE TEMPTRESS

I know Lure of the Temptress is old hat, but I am still stuck at the beginning. I know I have to get a potion from Taidgh's house, but I have nothing to put it in. I have a broken glass, a knife, a gem, a lockpick, a diary and a few groats.

Kerry Clayton, File.

I think your trouble is that you are wasting your life playing silly games and not enough time chatting up girls in pubs. Go round to the Magpie Tavern and get an eyeful of the barmaid; she's a girl worth getting to know. Remember that diamonds are a girl's best friend, so before she'll give you what you badly need, you'll have to give her what she wants. Isn't bartering a wonderful thing.

FUTURE WARS

We are four mature RPG enthusiasts having struggled with and completed games like Operation

Stealth, Indiana Jones, Monkey Island I and II, Kyrandia and Enchantia, but Future Wars has us beat. We have gone through the shuttle port, up the escalator, and been captured by the Crughorns. We have now found ourselves in a cell with an air-duct.

So what now? Please help us before serious damage occurs to the game disks, our Amiga 500 or indeed each other.

Mrs L. Butler, Nottingham.

What you must do is remove the grille from the air duct, insert the gas canister, then place a newspaper over the grille to prevent the gas seeping back into your cell.

The gas canister is found hiding beside the glass case which the girl was encased within in the Medieval World. The newspaper is obtained from the vending machine on the station platform.

Find the coin in the returned coin slot, then use it twice to make the machine work. Remove the grille from the duct using the key.

INFIDEL

I recently bought an ancient text adventure, Infidel by Infocom, from a charity shop. Do you or any of your readers with long memories know the answer to the following puzzle? I am in the pyramid, in a room with a recessed panel containing nine numbered bricks in rows of three. On the assumption that there is a secret room somewhere in this area, what do I have to do with the bricks to gain entrance?

Mrs A. Bird, New Malden.

Well this could be difficult, for I know from personal experience that the ancient Egyptians got up to lots of tricks with bricks, some of which were quite painful.

Have you heard of their technique concerning the 'bricking' of camels? No? Well I'll explain.

On one drink of water a camel can travel across the desert for a week; however there are some regions where there is no water available for at least two weeks, and only by 'bricking' your camel can it make the

journey. The trick is to lead your camel to an oasis and let it begin to drink. When it begins to suck in a belly-full of water, you must surprise it by bashing its 'unmentionables' between two bricks. The result is, in one sudden gasp it will suck in double the amount of water that it normally could; enough to last a further week. Don't be concerned because it doesn't hurt - providing you avoid catching your thumbs between the bricks.

To solve your problem you first need to get the Scralls, (another painful condition). Starting from the Room of Selkis: get the ruby, go southwest twice, get the sack and climb the rope. Drop the sack, wet your torch with the liquid, get the sack, go west, east, then south.

Drop the sack and get the scroll. If you read the scroll it will show you that you need to take out the third brick and then the fifth to solve your little problem.

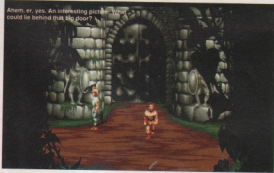
'She's beautiful, bewitching and 'Bad to the Bone', but Vampyra is still everyone's favourite nightmare.'



Once again the bat on the wall says it's time for bed, so I must love you and leave you. One final thought girls: any woman who wants to be the equal of men, is seriously lacking in ambition!

Write down your little but not unimportant problem and send it in a plain envelope to:-

'Dear Vampyra', CU AMIGA, Priory Court, 30-32 Farringdon Lane, London EC1R 3AU.



Ahem, er, yes. An interesting picture, but could be behind that big door?

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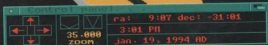
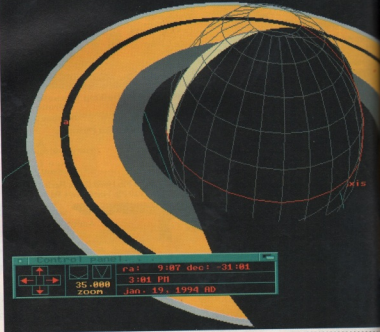
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The CU AMIGA top rated accolade for non-games products scoring over 90%. They will definitely be worth the money and are likely to act as a benchmark for future releases.

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POWERSCAN PROFESSIONAL

400 dpi, 256 Grey scale, hand-held scanner

The Powerscan is a 400dpi, grey scale model scanner, capable of creating 256 grey scale images (on AGA machines) from a scan head capable of recognising 64 grey scales. If you own a pre-AGA Amiga (A500 or A600 for example) you will still be able to use this scanner, but it will only allow the viewing of 16 greyscales.

The Powerscan Professional does a good job on most black and white images and has a good crack at colour pictures too. At 400dpi, the results are, given sufficient time, very impressive. I say given enough time because there is such a large variety of drawing tools and basic image manipulation controls in the software that accompanies the scanner. For example, features include picture smoothing (takes off the hard edges and remove the dots that so often plague scanned images), darken and lighten, edge outlines and bas-relief effects. These effects are complemented by a selection of drawing tools which allow you to make pixel corrections and changes to your scans. These tools vary from freehand to fill and shape (box, circle etc) drawing. You can also add text and colour if you wish.

With Power's reputation I expected this scanner to be a good all round product, and in most cases it meets these expectations.

There are, however, a few problems. For instance, the hardware interface box which plugs into the

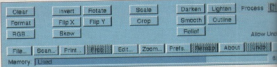
Parallel printer port of the Amiga blocks access to the RS232 serial port. If you

use the scanner with a serial printer you have to disconnect the scanner interface before using the printer!

Another problem is the sluggish response times to user interaction from the software (at times, the response to keyboard and mouse activity was so slow I found myself wondering if I'd actually pressed the mouse button!) This is most obvious when entering dimensions for the scanning size requester.

Niggles like the Powerscan Professional is a nice hand-held scanner, which, if given time, can produce some very impressive results.

Power Computing Ltd, 44a/b Stanley Street, Bedford MK41 7RW, Tel: 0234 273000
Price: £119



80%

DISTANT SUNS 5.0

Astronomy Program

Very few humans can comprehend the true enormity of the universe. One who did get close was Douglas Adams, author of the *Hitch Hiker's Guide to the Galaxy*. As Adams put it, "Space is big. Really big... I mean, you may think it's a long way down the road to the pharmacy, but that's just peanuts to space."

Adams' words may seem rather unscientific, but it's these words that introduce Virtual Reality Laboratories' new *Distant Suns 5.0*, a program designed to allow Amiga users to roam the known universe without having to hitch a ride from a passing Vagon spacecruiser.

Distant Suns displays what can best be described as an interactive planetarium on your Amiga. Once you've set the date and the direction in which you'd like to look, *Distant Suns* then displays an accurate representation of the night sky. You can then click on individual stars and planets and read lots of interesting facts about them. It's perfectly possible to recreate famous events in space – the passing of comets and asteroids, the alignment of planets (the so-called 'Jupiter Effect') and so on – simply by adjusting the date.

Most of us probably think of space as a rather dull place where the only interesting thing you're likely to see is the occasional comet. With *Distant Suns*, however, the night skies come alive, revealing more detail than you could shake a lamb at.

With a single click of your mouse button you can view the movement of stars, star 'trails', constellations (including the rather naïf 'Canes Venatici' – it's just two stars joined together) and you can even zoom around the solar system viewing the planets as you go. *Distant Suns*' rendering of the planets is well handled although the planets do look rather 'flat' as they lack any texture. Some form of texture mapping certainly would have made the planets look far more realistic.

Animation is another interesting feature of *Distant Suns*. Instead of simply viewing the skies as a static collection of stars and planets, you can create animated voyages through space by turning on *Distant Suns*' Time Lapse facility and then recording the results into a standard IFF Anim file. You could, for example, view the orbit of Halley's Comet as it passes the inner most planets of the Solar System.

Distant Suns may not be the most immediately satisfying program that you could buy for your Amiga but it's certainly one of the most fascinating. Even if you don't enjoy staring at heavenly bodies for hours (don't worry, I'm not going to crack a tired double entendre about heavenly bodies), *Distant Suns* is one of those programs that totally envelops you in its subject matter. For budding astronomers everywhere, *Distant Suns 5.0* is a must.

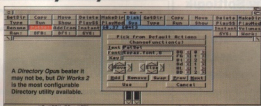
Meridian Software Distribution, East House, East Road Industrial Estate, East Road, London SW19 1AR.

Tel: 081 543 3500. Price: £59.95

88%

DIR WORKS 2

Directory Utility



to grips with the Amiga's disk operating system without having to sweat up on the Shell beforehand.

Possibly the most popular Directory utility available for the Amiga is INOVATRONIC's Directory Opus 4.0 which can be found running on more Amigas than any other program. A new challenger to Opus' throne is *Dir Works 2.0* which has been expertly written by Chris Hames, the author of the infamous 'PC Task' emulator package. Chris' program looks very similar to just about every other Directory utility available for the Amiga with the usual 'Source' and 'Destination' directory listing windows accompanied by a wide variety of buttons that allow you to perform such disk maintenance tasks as copying and deleting files, formatting disks, playing sound samples and modules, and the list continues.

Nothing special so far. Indeed, so far Opus still leaves *Dir Works 2* standing simply because of its elegant design. What makes *Dir Works* somewhat more interesting, however, is the sheer level of configurability that the program offers – what this basically means is that if you don't like any aspect of the program (including the screen design), *Dir Works 2* allows you to change it. Indeed, you can even create a whole new user interface from scratch. What's more, the final result doesn't even have to be a Directory utility – Hames himself includes a demo user interface that gives full Workbench control over GVP's G-Lock genlock!

Rating a product like *Dir Works 2* is surprisingly difficult. On the one hand it fails to even come close to the one product that it is aimed at (*Dir Opus*) but on the other hand it offers such a high level of control and flexibility that calling it a Directory utility just isn't doing the program justice. If you want a Directory utility then buy *Dir Opus 4.0* but if you want a program that will allow you to create Workbench front ends for any ARexx-compatible programs or AmigaDOS commands, then *Dir Works 2* is worth checking out. Perhaps the publishers should consider a change in direction for the product?

Meridian Software Distribution Ltd, East House, London SW19 1AR. Tel: 081 543 3500.

Price: £TBA

78%

AMIGA ASSEMBLER INSIDER GUIDE

Book

Following on from its successful A1200 and A600 *Insider Guides*, Bruce Smith Books have launched the *Amiga Assembler Insider Guide*. Written by Paul Overaa, the prolific author of a number of BSB's famous *Mastering Amiga...* books, *Amiga Assembler* is a compact and easy to follow guide to programming your Amiga in its native language, 68000 assembler.

The book starts with a leisurely stroll through the basic architecture of the Amiga's processor, its various components and how these relate to assembly language programming. Paul then moves onto the more practical subject of addressing modes, data and address registers and he even finds time to introduce a few basic assembly language instructions. Before you know it, you're ready to go head first into OS library calls and 'LVO' values. Personally though, I would have thought that it would have made more sense to have built a solid understanding of the 68000 instruction set before moving on to such an advanced subject!

The flow of the book's content is broken up still further when the book seems to take more than just a couple steps backwards by looking at how to operate the PD assemblers A68k, Blink and HiSoft's DevPac. Surely this should have been at the start of the book near the chapter introducing assemblers?

The book then moves onto more code-intensive subjects including macros, programming under Intuition and a brief overview of the Amiga's graphics functions. Documenting such a complex subject as the Amiga's operating system would obviously need a much larger book but I still can't help thinking that perhaps the author presumes too much prior knowledge from the reader. Indeed, you really need the Amiga ROM Kernel manuals to be able to follow many of the examples scattered throughout the book.

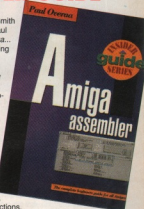
Covering the OS routines is a very well but you can't expect the reader to automatically know the parameter formats of every OS routine! In fairness, however, Paul does try his best to document many of the routines that he discusses. I still feel, however, that it would have been a much better bet to have built a more solid understanding of the language itself before getting too bogged down in OS coding.

The *Amiga Assembler Insider Guide* is a brave attempt to introduce assembler language programming to the layman but unfortunately it fails to hit the mark as the language used may still be too technical for most beginners to understand clearly.

Bruce Smith Books, PO Box 382, St Albans, Herts AL2 3JD. Tel: 0923 894355.

Price: £14.95

60%



PageStream is one of the top DTP applications on the Amiga. Now Softlogik have announced version 3, claiming that it beats the legendary *QuarkXpress* on the Mac, and leaves *Professional Page* for dead! Andy Leaning takes a privileged first look to see some of the new features it will offer.

PageStream 3

EXCLUSIVE PREVIEW



PageStream has always been one of the muscle men of Amiga DTP heavyweights. Yet, no matter how many steroids Softlogik pumped into it PageStream never developed enough muscles to become the Arnold Schwarzenegger of Amiga DTP software. Now, however, with the imminent release of version 3, PageStream may be ready to kick sand all over the competition.

PageStream has changed considerably from its original design. When first released on the Amiga, it was more or less a straight conversion from the Atari ST implementation. Over the years, however, Softlogik have adapted it to look and behave more like a proper Amiga application.

Below: paragraph formatting has undergone some subtle but significant improvements.

ALL-IN-ONE AND ONE-IN-ALL

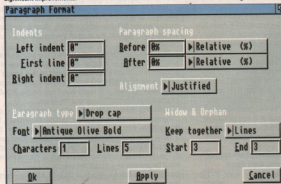
At £295, PageStream 3 may, at first, seem expensive, but before putting your credit card back in your wallet and going home consider what you will get for your money. PageStream 3, the package, is far more than just a DTP program.

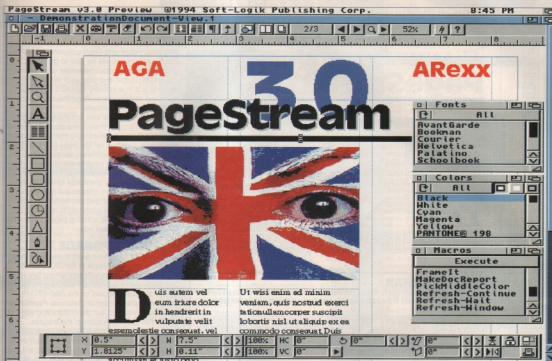
In addition to the page layout program, you also get a bitmap graphics editor, BMIC, for creating and editing pictures, a text editor called PageLiner and a whopping collection of over 50 fonts. Although £295 may seem high, you will get everything you need to create documents with and as such it has to be good value. And, of course, existing users will have an upgrade path, which will allow you to upgrade for less depending upon which version of PageStream you have.

NEW LOOK

On loading PageStream 3, it's obvious that the new version is more than just an update to keep up with developments in Workbench refinements, indeed Softlogik claim the program was completely

rewritten for the new version. Although the familiar menu, window and drawing tool pallet remain, the new incarnation has a completely new command tool bar, a feature that's becoming increasingly common on Amiga applications. Many of the most popular commands are available as buttons, providing access to options such as Undo, Redo, Cut, Copy, Paste, Change Page, Magnify, Open, Save and Print. The





PageStream before and after. PageStream 2 versus PageStream 3. Notice the new tool bars and edit palettes.

drawing tool pallet (called the toolbox) can also now be customised, changed to lie either vertically or horizontally and can be displayed in two different sizes (like Wordworth 3).

The Edit pallet provides information on objects, text etc such as the position, width, height, and rotation angles of objects. You can edit all the settings via the pallet (rather than working your way through menus), which can be automatically increased and decreased via 'nudge' arrows. Anyone who has used QuarkXpress will recognise the power and speed that this window will bring to PageStream and it is, in my humble

opinion, perhaps the single greatest improvement to PageStream, as it allows experienced users to edit and change their documents far faster than previously possible.

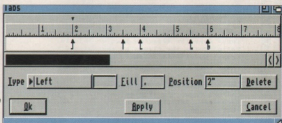
A4000 or A1200 owners will now be able to see pictures in full colour. Although a major upgrade to

PageStream, this facility has been available on ProPage for some time, and isn't really that significant, although it's still a welcome improvement.

PRODUCTION

If you use a DTP program for serious work you'll probably miss some of the advanced document handling facilities found in QuarkXpress on the Mac and PC. For example, the problem of not knowing what files, fonts and graphics are used in a document. A classic instance would be going back to edit an advert or flyer sometime after it was originally created, only to find that when printed the pictures are missing, or you haven't got the correct fonts installed. Previously, the only way around this predicament was to waste through the document looking at every font and picture, to reinstall them. This got more difficult as the number of fonts and images increased.

Quark users have long had the benefit of simply being able to call up a list of the fonts and pictures used in a document, but there's never been a similar facility in any Amiga DTP package. Until now, that is. PageStream has requested telling you exactly what fonts, pictures, and articles are used in



Tab stops can now be set very easily precisely where you want them, you can also choose to fill the tab spaces with a character of your choice.

a document and where they are! Even better for frequently-used files, the program keeps individual revision numbers so you can be sure that the file you are editing is the most recent.

The applications' tools for long documents has also been dramatically overhauled. Now, not only are there tools for formatting the contents of documents over one page (chapter/subchapters, chapter numbering, automatic indexing and table of contents) but also a massive number of structural layout editing facilities which can be used to manipulate the location of pages, double page spreads and master pages.

To long-time PageStream users many of these will seem like a wishlist come true. You can, for instance, now change the objects on a master page for each individual page without affecting others, and join two single pages into a double page spread.

Softlogik have, at long last, followed the rest of the DTP industry and adopted Pantone colours. The Pantone system is a means of

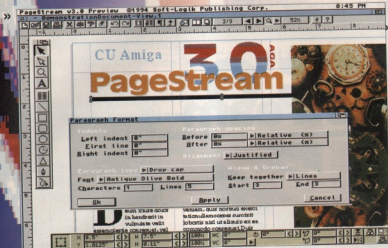
LET'S COMMUNICATE

PageStream has always had the potential to be better at communicating with other programs than almost any other Amiga application. Softlogik were one of the first Amiga developers to use modules for importing and exporting files to other programs whilst the Hotlinks system allowed PageStream to automatically update files in a document as they were changed in other applications.

With release 3, however, Softlogik have gone even further. Amiga lovers will swoon when they find that at long last an AREXX port has been provided, better yet, it's a full command set.

It's been a long time coming, but worth the wait! The import modules have also been enhanced, with the ability to read text (with the style and attributes intact) from Final Copy, Final Writer, Word Worth, and ProWrite to name just a few. Perhaps the most dramatic new facility however is the ability to import ProPage files, the manual also documents the different concepts between the two programs and also provides on-line help for ProPage users!

Assuming all these features make it into the final version, PageStream could well become the AdPro of the text and DTP market - the ultimate in file converters.



Left: PageStream 3 is all in its glory. Note the drop cap reference in the paragraph format requester.

specifying a colour via reference numbers that denote how the colour is made up from Cyan, Magenta, Yellow and Black components. Using these numbers you will be able to generate exactly the same colour no matter what system you create, output and print your documents on. Pantone is a true industry standard for colour repro and its inclusion in PageStream is well overdue, but very welcome.

Along with the new look and improved production aids, the programmers have also incorporated a number of new graphics tools and page creation aids. Sadly, there are far too many new drawing and object handling abilities in the program to do them all justice in the small space available here, however, as a testament to objects can now be placed across page spreads, graduated colour fills are now available, variable shaped text frames (rather than just square/rectangle) can be created and edited, objects can be anchored to text, drop cap creation and automatic scrolling pages as you drag objects near the window edge.

LOGIKAL UPGRADE

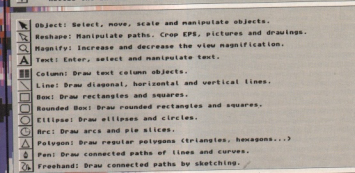
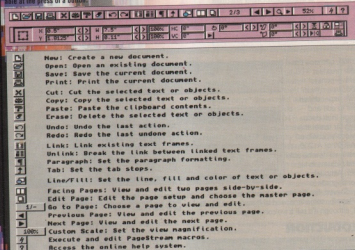
I've known Softlogik for a great many years, being one of the very first people in the UK to see the original versions of PageStream almost five years ago. Back then it was called Publishing Partner Master and was released on the Atari ST.

When Softlogik originally released PageStream it was nice to look at, but got in close and you'd get getting frustrated with some of the features.

PageStream has now grown up. Providing Softlogik releases PageStream 3 in a bug-free state they've got a winner, and one which will take GoldDisk a long time to catch up with, if at all. Contact: Meridian Software Distribution Ltd, Tel: 081 543 3500. **CU**

WHAT'S ON THE TOOLBAR

PageStream's new Toolbar is action. This new addition to PageStream's armoury makes the Softlogik program a joy to use and increases the speed of operations as many of the most-frequently used Menu commands are now instantly available at the press of a button.



NEW FEATURES IN BRIEF

Typography/Text Handling

- Automatic drop caps
- Automatic bulleted paragraphs
- List texts in a document
- Variable shaped text frames
- Hanging Punctuation
- Baseline grid

Word Processing

- List articles in a document
- Dot leaders (for tabs)
- Smart quotes & Dashes
- Show/Hide invisible characters

Graphics

- Contrast Control
- Irregular picture cropping
- Display pictures in colour (AA support)
- List all pictures in a document
- Split drawing into paths/shapes
- Extend objects across page spreads
- Colour gradient fills
- Fill line strokes with a fill style
- Merge and split drawing paths

Interface

- Toolbar for common menu commands
- Edit pallet for object coordinates etc
- Drag page to scroll
- Auto scroll
- Alt/ez Support

LAYOUT Aids

- User defined grid colour and grid strength
- Adjustable ruler offset and zero point
- Mix measurement in system fields

Long document handling

- Chapter numbering
- Automatic indexing
- Anchor objects to text
- Continued from/to numbers
- Chapters and subchapters

Colour & Printing

- Pantone colours
- Trapping
- Plate control
- Suppress printout of selected items
- Print empty pages option

File Management

- Revision numbers
- Job numbers
- Auto-save

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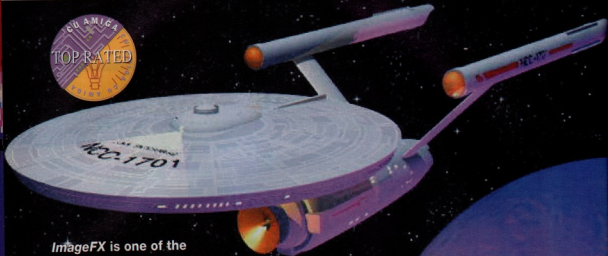
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ImageFX is one of the most powerful image manipulation programs on the Amiga. In fact, there is very little it won't do. Now GVP, its publishers, have released a new version which upgrades many of its features. When originally released, *ImageFX* took the Amiga market by surprise. GVP are a company better known for hardware, in fact, with the exception of the software supplied with their hardware products, they had never previously released a software title!

Then suddenly GVP introduced not just one but two applications, *ImageFX* and *CineMorph*. Sadly *CineMorph*, GVP's attempt at video special effects, although popular, was never destined to be one of the big sellers of Amiga software. *ImageFX*, however, was quite the opposite and quickly became the mainstay for graphically-orientated users.

Now their do-all program has been upgraded, and from the look of the packaging alone *ImageFX*

The *ImageFX* composition tool allows two images to be combined to produce impressive results.



IMAGEFX

1.5 has all the hall-marks of a major league application. It's all there; huge box, thick manual, and loads of disks (four of them in all). Starting couldn't be easier. All you do is pop in the first disk with the install program. This is a standard Commodore installer which takes you through the various options and away you go.

CHOC A BLOCK

Once it is set up and running, the size and scale of *ImageFX* is amazing. Not only does it have most of *DPaint's* drawing and painting tools, this program also has a huge selection of image composition, manipulation and processing functions, the like of which only *ImageMaster* could only hope to compete with.

Budding artists will welcome the support for numerous types of hardware such as graphics cards, scanners, and frame grabbers. This wide selection of hardware input devices ensures that

DO YOU GET MORPH FOR YOUR MONEY?

CineMorph is GVP's other attempt at stand alone software. It is a software application that lets you create animations where one image is magically converted to another. Similar effects have been seen in films such as *Terminator II* and for too many car adverts.

Why am I twittering on about *CineMorph* in a review of *ImageFX*? Simple, *CineMorph* is included in the price, and not only has *ImageFX* been upgraded, but so has the special effects program.

The new version of *CineMorph* doesn't include any major league new features, but has been tweaked internally to take advantage of the AGA chipset and *Workbench 3.0*, and also make response times faster - particularly mid-operation cancels.

Whether these improvements will see their way into the standalone is anyone's guess. *CineMorph* was undecided at the time of this article going to press.



Main pic on page 104, above and below are all examples of some of the various effects possible with ImageFX.

SAVE TO BE LOADED

Just like AdPro ImageFX is modular, allowing you to add 'loaders' and 'savers' as you wish. Loaders and savers allow the program to read file formats other than its own, letting you process and edit artwork created in 'foreign' applications. You could, for example, create a picture in say, Windows Paint, then load it, make some changes in ImageFX and finally save it in MacPaint format ready for further editing on the Mac. Unlike AdPro however you get a great many loader and saver modules with the program, you don't need to buy them at a later date. With the program, there are some 35 different loader/saver modules supplied, these include the common (GIF, JPEG, PCX, TIFF, ANIM, IFF including 24-bit, DCTV, Retina, HAM-E) and the not so common (Alias, DPM, BMP, Flick, IGO, Inverse, Info, PPM and PGM, Script, Rendition, Targa, IFF FAX).

There are also plans to release further loaders shortly, and several PD software developers are already looking into writing some more loader and saver modules.

you should have no problem getting raw picture material into ImageFX for further processing. And if you already have your desired artwork in a commercial file format the program will allow you to convert it and save it back out thanks to its ability to load and save over 20 different file formats.

ALL TOOLED UP

Other tools include pens, draw (more of this later), airbrush, smudge and finger-paint, freehand draw, line and arc, rectangle, ellipse, polygon and, last of all, flood fill. The draw modes have been updated to enable you to copy pixels from another area of the screen. This facility, *Paintbrush*, allows you to copy patterns from one area of a picture to another whilst drawing and painting. You can, for instance, paint in third eye on a face, and because you are drawing with pixels picked up from the original eye you can get far better results than a straight block copy operation would provide – wonderful!

There is a facility very similar to Pantograph in Photoshop on the Mac and PC, and its provision in ImageFX is very welcome. It gets better. In addition to these drawing and painting tools you can

SHELL SHOCK!

In addition to controlling ImageFX with the mouse, you can also summon up a dedicated ImageFX command shell. This allows you to access most functions in the program via its own text command sequence.

You may ask why such a feature has been incorporated into the program, and the answer is one which is bound to cause endless arguments. For experienced users the ability to type in commands will provide a faster method of operating than the normal mouse/gadget combination. No you probably don't believe it, neither did I in the past, but consider this: in the time it takes you to move the mouse to a gadget, click on it, move through several requests and then finally select the desired gadget, fast typists could have tapped a few keys and achieved the same thing. And for straight file conversions etc, this is all that's needed – so it does work out quicker!

also 'feather' the edges of any new drawing. Edge feathering takes the edge of the new drawing and blends it into the background image. The blend lasts for a specified number of pixels from the drawing, either away from and into the new drawing area. Using this facility you can mix new elements into an existing picture without any of the rough edges that normally occur.

FABULOUS FEATURES

Alongside the actual drawing and editing facilities are a whole bunch of other tools which I lump together under the title of image composition and manipulation functions. Facilities include making changes to the colour space of a picture in changing the colour components, and a vast number of other snappily-named effects including Motion Blur, Sharpen and Unsharpen Masks, Dynamic Range, Wave Distort, Oil Transfer, Implosion, Explode, Black Hole and Spiral to name just a few.

The composition functions are both powerful and flexible. Composition is the process of taking one image and combining it with all or part of another image and forms the basis for a large number of artistic effects. ImageFX provides a great many different ways of combining two images. The main image is held on screen, whilst the composition picture is held in a buffer. Once the two pictures have been set up you can then apply a merge, matt, addition, subtraction or Image Map composition to combine them.

Merge combines two images using a given percentage of each to make up the final. Matt will replace any colour in the main picture with the contents of the buffer and you can specify both the colour and how close to other colours should be before they are replaced with the buffer image data. Add and Subtract will add or subtract the value of the buffers to the pixels of the main buffer, this makes bright pixels brighter and dark pixels darker. The Image Map paints the hue and saturation of individual pixels in the main buffer with those of the swap buffer without touching the contours and textures of the main buffer.

All these functions, and indeed all other operations in ImageFX, are yours at the touch of a button. Different choices are selected through an Amiga GadTools cycle. GadTools are a way of allowing you to select one of many different options, but only showing one at a time, each time you click on the button the next option in the list appears.

The cycle GadTools has been changed slightly from normal AmigaDos 2 versions, in that you can now move forwards and backwards through the cycle list. These buttons in the cycle list are selected from an editing tool bar which lies across the bottom of the screen, from this tool bar every feature of the program is controlled – there are no menus in ImageFX.

PROBLEMS

GVP, have on the whole, got it right. There are, however, a couple of areas that could be improved. Text handling could be easily enhanced, a requester asking for text is not particularly outstanding. But, what really lets the program down, is the fact that you can only enter one line of text at a time. Some of the requesters are not overly intuitive or helpful either. Another annoying oddity is the inability to specify a magnification level – yes you can magnify up and down on an image but you can't set a percentage.

CONCLUSION

ImageFX 1.5 is a diamond of a program. It shines in practically every respect, making other applications look like cheap gemstones by comparison. But unlike a cheap Diamond, it isn't expensive, in fact, it's exceptional value for money given the price of similarly capable applications on Macs and PCs. All that remains is for GVP to file off some of the rough edges and ImageFX will become the crown jewel of Amiga graphics programs.

Owners of previous 1.5 should get the new version immediately, admittedly it's not a major upgrade, but the subtle changes make all the difference in the world. **CU**

FILE ON THE ADD-ONS

ImageFX 1.5 supports a massive range of hardware add-ons for the Amiga. These can broadly be broken down in two categories.

1. Input: ImageFX supports the following input devices: Epson ES300C, VLAB and Sharp JX180 scanner, IV24, Framegrabber 256 and PP&S frame grabbers, digitising tablets

2. Viewing: ImageFX can render images into a viewable format for all major Amiga screen formats and enhance graphics cards, including the AGA chipset, HAM-E, DCTV, FireCracker, IV24, OpalVision, and EGS.

The new version also has a preview mode called SuperAmiga. This lets ImageFX support any ScreenMode that is detailed in the Amiga's Display Database (as found in Workbench 2.1 and higher).

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EASE OF USE ★★★★★★★★★★
Some of the requesters are a little unclear, and to the new user endless gadgets can prove a little daunting.
VALUE FOR MONEY ★★★★★★★★★★
Okay £149.99 is a lot of money, but you get a lot for it.

ImageFX is a bargain.
EFFECTIVENESS ★★★★★★★★★★

For image manipulation, graphical file conversion and digital editing ImageFX does a blinding job.
FLEXIBILITY ★★★★★★★★★★
How much more flexible could you want.

INNOVATION ★★★★★★★★★★
Provides some truly innovative features for an Amiga graphics package (edge feathering, pantograph etc). It's good to see someone bringing new features to the Amiga graphics market.

A graphics package to rival those on the Mac and PC.

OVERALL 91%

Yabba Dabba Doo! Tony Horgan tries his hand as a cartoon film maker with Empire's new animation package.

Until now there were two main choices for Amiga cartoon animators: *Movie Setter* and *Deluxe Paint* – both very different, but both very capable. Hanna Barbera's *Animation Studio* now offers a third alternative, taking a more traditional approach to cell animation. Rather than go for an all-out bells and whistles extravaganza, the designers have decided to make *Animation Studio* as easy to use as possible. Maybe inevitably, this means that you won't find a stack of ground-breaking features. Instead, the emphasis is on simplicity, with a customised icon system replacing the normal Amiga menus.

SOFT CELL

Unlike *Deluxe Paint*, *Animation Studio* splits up its frames into two parts: still backgrounds, and animated foregrounds. Each animation can have just one backdrop, over which all the action happens. The foreground frames are created on a separate screen, and then overlaid on the backdrop. Once you've created your first frame or cell, you can move onto the next. Thanks to the "onion skin" feature, which means that the previous few frames show through as progressively lighter images behind the current frame. As the program doesn't have any tweening features, this is essential when you're moving a character or object across the screen, in order to get a smooth transition.

The drawing functions for creating your backdrops and foregrounds are very simple. All you get are the basic tools: line, circle, box, freehand, fill, undo and clear. There are also a few different brush sizes to choose from. Amazingly, there's no way of loading in foreground cells or backdrops that you might have created in another program. There is no support for IFF images at all – it won't load them or save them. Even your final animations cannot be saved as standard Anim files. An animation package that can't use IFFs? Strange but true I'm afraid. The result of this is that everything has to be created from within the program, unless you have a VIDI digitiser.

VIDI SUPPORT

The digitising option is by far the best feature of the *Animation Studio*. Confined just to Amiga, up to a Rombo VIDI digitiser and a video source, and you can grab black and white images for use in your animations. Anyone trained in traditional cell animation could use this to transfer hand-drawn frames from paper or film to the screen. You could also make your own stop-frame animations, or Captain Pugwash-style cartoons using cardboard cutouts. There's more potential here than meets



You might not be able to match the excellent demo animations, but you'll have fun trying.



Hanna Barbera Animation Studio



The whole program is controlled from picture icons like these, which should make it more accessible to younger kids.

the eye, and with a bit of imagination, you could easily build some very original animations in a matter of a few minutes. A ring-bound book of black and white outline images comes with the software, including animation frames to be digitised, as well as a dismembered Fred Flintstone for you to cut out and animate.

KIDS' STUFF

Animation Studio is designed for kids, which explains the simplicity. It's easy to use, the VIDI support is excellent, the little animations that come with the package are great, and there's even a tutorial video included in the package, but it still has some major flaws and omissions.

It would have been nice to see some simple sound effects features. For example, IFF sound samples could have been tagged to certain frames. This would be an incredibly easy feature to implement, and would add a great deal to the final cartoon – after all, what is a cartoon without sound effects? Then there's the incompatibility with IFF images and animations, which is inexcusable. Moving backdrops and multiple scenes aren't on the menu, and there's no way of replaying your animations outside of the main program.

Animation Studio would make a good starting block for young animators who don't want to do anything more than construct a short cartoon sequence over a still backdrop. It's certainly not a rival for *DPaint*.

If you want powerful paint an animation, you know where to go. If you want to give your little ones a chance to make their own cartoons, then this is definitely a better bet. **CU**

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EASE OF USE

Everything is controlled from a few picture icons, and there aren't any tricky features to cope with.

VALUE FOR MONEY

It's relatively cheap, but then it's not exactly packed with features.

EFFECTIVENESS

Effective at putting together very simple cartoon animations, but not capable of much beyond that.

FLEXIBILITY

Not very flexible at all. No IFF support, very basic drawing tools, few animation features, no tweening, no sound, static backdrops.

INNOVATION

The VIDI digitiser section is first (EA, can we have this in *DPaint* 5?). Other than that, it's more of a step back than forwards.

“A very good starting point for kids, but otherwise limited.”

OVERALL

69%



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If you're a regular CU AMIGA reader you'll know how impressive the CD32 games console is. With its state-of-the-art 32-bit internals, near photographic quality graphics, stereo sound and Amiga compatibility the CD32 can play some really impressive games.

For gamers the CD32 is simply unrivalled. Whilst other console manufacturers announce new super consoles, the CD32 is already out and about, and it's a true 32-bit system to compete with the new models from Sega, whenever they arrive.

But it's also got a lot more. If you've read the review of the CD32 FMV module in our February issue and the review of the first FMV films in the May issue you'll know how stunning Commodore's CD32 upgrade is. If not, take our word for it, with a CD32 and FMV module home entertainment will never be the same again!

Wire up the CD32 and you can watch top films like *Patriot Games*, *Star Trek* and *Black Rain* with better than video quality pictures, CD sound, and perfect digital freeze frame - amazing!

You're probably already thinking about buying one of these amazing beasts. Let's face it, with a new price of just £249 for the CD32 and and £199 for the FMV card there's never been a better time.

But how would you like to win both of them right here? Thanks to Commodore we've got three of these stunning combinations to give away, all you need to do to stand a chance of winning one is answer these three simple questions:

1. How many games are now available for the CD32?
2. What does FMV stand for?
3. How much is the CD32?

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2. The closing date is 31st June, 1994.
3. The editor's decision is final, and don't bother trying to bribe him (unless you've got lots of money!)
4. No correspondence will be entered into.
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WIN WIN WIN



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I bet he's 'hunting' around for a CD32.

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* Masses of games
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AMIGA CD32

Class War has raged long and hard in Amiga Comms, but at last peace has broken out thanks to the very latest version of **GPFFax**.

GPFFax

All modems you can buy these days come with fax capability. However, nine hundred and ninety times out of a thousand the software in the box will be something like WinFAX Lite – a very good piece of software, but unfortunately it is only compatible with the PC.

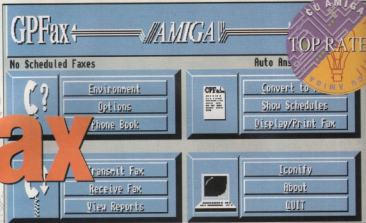
Also, the majority of the Amiga software that you can use has what's called Class 2 Fax Capability. This is fine if you have a modem such as those made by Supra, but most of the low-cost modems from USRobotics only support Class 1. The difference between these Class 1 and 2 isn't great, but it is enough to prevent the favoured Amiga program, **GPFFax**, from working. After spending £250 on a small-but-perfectly-formed Sportster, it was incredibly frustrating not to be able to use the fax facilities with my Amiga.

Thankfully, help is at hand. At last, due to popular demand, **GPFFax** has been updated to include both Class 1 and Class 2 modem support. Now, both USRobotics and Supra fans (and any other make of fax modem) can make the most of their tiny little bleeping boxes.

THE FAX OF LIFE

Using **GPFFax** is brilliantly simple. Before you can send a fax you must first convert text files or pictures to a suitable fax format, a process which takes **GPFFax** only a few seconds. You can then take a name from your on-screen phone book, or type one in directly. Adding a cover page is simplicity itself. You hit transmit and the modem dials a number and sends the fax. End of story. You can also choose to have the **GPFFax** program appear as an icon on the Workbench when loaded, which is handy if you want to include it in your Workbench Startup drawer.

Although converting a text file is dead easy, believe it or not there is an even easier way to create suitable faxes. **GPFFax** can be set-up to intercept any files which have been sent to a printer, which means that any program which has a 'Print



The main control screen can be displayed on the Workbench, be on screen or even collapsed into a single icon. Even when iconified, it is always ready to spring into action and answer the phone, or redirect printer output.

option can be used to create suitable faxes.

When combined with a good page publisher such as *Final Writer* or *WordWorth*, the results are extremely professional looking. In fact, to get similar results with a standard fax machine you would need to DTP your letter, send it to a laser printer and feed it in by hand. If you use a fax for business, having a fax modem and **GPFFax** will actually save you a lot of bother.

Receiving a fax isn't a problem either. You can trigger the fax reception by hand (useful if you have a main telephone switchboard to get through) or invite the modem to automatically pick up the call. Received faxes will be converted to standard IFF images which means you can display them on-screen before deciding if they merit being sent to a printer. It goes without saying that this is the cheapest way to get a plain paper fax machine – no fading or curling pages (unless your printer is broken). You don't even need a printer as most faxes are perfectly suitable for keeping in IFF format on disk, which can be a lot safer in a security-conscious environment.

The excellent *Amiga* support offered by **GPFFax** means that system operators who run bulletin boards will be able to add fax support to their systems. Details are given in the manual to integrate **GPFFax** with *Trapdoor* – the popular electronic mailer program. When set up properly, it's possible for the BBS to accept faxes on behalf of the board's users, and forward them automatically as image files. This sort of system requires a Class 2 fax modem in order to work, as only Class 2 systems will correctly differentiate between a fax call and a normal modem data call.

JUST THE FAX M'AM

There are only a few little bitty bugs and omissions in **GPFFax** at the moment – for example, when using the redirected printer output, the software spits up an error if you happen to be running an application in an AGA screen mode. You can ignore it, but it's a pain. It would also be nice to see multiple faxes on-screen, and be able to rotate incoming pages in steps on 90 degrees too.

You should remember also that **GPFFax** won't produce ASCII text from received files, only an IFF. There are many options available to fine-tune your particular setup, including fax resolution and auto-answer. Some options are only applicable for good old Class 2 modems, but at least the Sportster can now be used.

image. To interpret the image into raw text, a specific Optical Character Recognition is required.

CONCLUSION

GPFFax is a terrific program which although offering tremendous power, does it all in a very non-techie way. It is by no means essential to be comfortable with Comms and modem jargon before you use **GPFFax**. In fact, in many ways it's actually easier to use than a dedicated fax machine.

With its friendly point-and-click interface, and **GPFFax** offers practically all the features available on PC specific fax programs. In fact, as the Amiga multitasks properly and offers *Amiga*, once again an Amiga set up will out-perform and cost less than a similar setup on any other computer platform. **CU**

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EFFECTIVENESS *****95%

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MEMORY BOARDS Challenge

John Kennedy takes the current batch of A1200 memory cards for a spin around the block. Which one makes it back first? Read on and see...

I don't take an A1200 owner to realise that they need more memory and more speed. A hard drive may solve the 12 disk dance of misery which certain Word Processors impose, but if you've tried using large pictures you'll know by now that simply adding more memory to the trapdoor expansion slot will have the added benefit of freeing up the graphics (or 'chip') memory and boosting performance.

Programs will automatically load into this 'fast' memory, and a doubling of the standard A1200's speed isn't unknown. Some memory cards will improve things even further by including an FPU (or Floating Point Unit) on the card. Maths intensive programs, such as ray tracers or fractal landscape generators, will use the FPU to cut processing times still further.

DEAL THE CARDS

The two latest cards to come into the CU AMIGA testing labs are the Amitek Hawk and the Blizzard 1220. Both promise extra memory, a real time clock and a good injection of steroids to boot. Both fit into the trapdoor expansion of the A1200, and so the on-site warranty is therefore left intact.

The HAWK card is quite large, mainly due to the inclusion of a single SIMM socket. Using memory in the SIMM package means that upgrading can be done in steps, from 2Mb to 4Mb to 8Mb. Unfortunately, the provision of only one socket means that you'll need to throw away the SIMM that's already present when it comes to upgrade.

The size of the HAWK makes fitting a little fiddly, and it certainly looks a lot less hi-tech than the superslim featherlike Blizzard. The Blizzard is a 'half height' trapdoor card, which comes with 4Mb of RAM surface mounted. Another 4Mb can be added by clipping on an extra card which fits the remaining trapdoor space.

TESTING TESTING

In use, the HAWK turned in a rather poor set of figures. Compared to the older Power PC1204 it lagged badly, and even fitting a jolly fast 68082 FPU didn't give it too large an improvement over the Power board's 14MHz chip. By comparison,

advertising license. However, the results from the tests were so good I removed to card to get a better look. Guess what? There in the corner was a 68020 processor, clocked to run at twice the speed of the original 68020 fitted the A1200. Obviously Motorola 68020's are getting pretty cheap these days...

Frighteningly, the Blizzard card ran faster than my A4000/030, which leads to me think (a) evil thoughts, and (b) the original A4000 isn't as good as I first thought it was. Perhaps CBM will send me a new A4000 Tower as a goodwill gesture.

In conclusion, the Amitek HAWK is definitely 'just another memory board', and not a very good one at that. The Blizzard on the other hand gives some bargain 68030 cards serious competition. If you can live without the MMU which full 68030s come with, this could be best way to get A4000 performance from an A1200.

TEST DETAILS

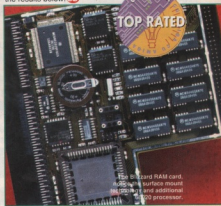
In the test on the right, both versions (Integer and FPU) of Imagine were used to render exactly the same image on various Amiga systems. The result given is the length of time in seconds which the computers took to perform the render. Amazingly, and to my great jealousy, the Blizzard

the Blizzard nearly blew off the desk.

The blurb on the box promised a huge speed increase due to an 'automatic memory clock doubler', something I originally put down to

once again out performed my 68030 based A4000, rendering faster than it. With a FPU, the Blizzard would be unstoppable.

Sysinfo was used to obtain a MIPS (millions of instructions per second) and FLOPS (millions of floating point instructions per second) speed. Sysinfo was also used to measure the speed of the 3.5 inch hard drive fitted to the A1200. Note how extra memory increases the drive speed (bytes/second). Finally, check out the results below.



Accelerator Cards

	Imagine	Sysinfo	
INT	FPU	MIPS	HD Kbytes/s
A1200	279	N/A	1.34 649
A1200Power	169	143	2.96 1,101
A1200Amitek	192	134	2.50 652
A1200Blizzard	96	N/A	6.05 1,139
A4000/030	110	088	4.43 N/A

TEST MACHINE SPECIFICATIONS:

- A1200: Standard A1200 with no extra memory or FPU
- A1200 Power: A1200 fitted with Power PC1204 card including 14MHz 68882.
- A1200 Amitek: A1200 fitted with Amitek card with 33MHz 68882.
- A1200 Blizzard: A1200 fitted with Blizzard 1220 card. No FPU available.
- A4000: Standard A4000 with fast memory, 68030 and 25MHz 68882.

AMITEK HAWK, SILICA SYSTEMS

Prices range from £90 (1Mb RAM, no FPU) to £499 (4Mb RAM, 40MHz 68082 FPU)
Unit tested: 2Mb of RAM, 33MHz FPU - C109

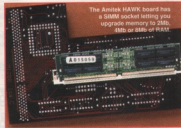
BLIZZARD 1220

Prices vary from £210.95 (4Mb RAM, no FPU) to £469 (8Mb RAM, 33MHz 68082 FPU)

Unit tested: 4Mb of RAM, no FPU - £219.95

70%

92%



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Sharp DV-3750H colour TV

Andy Leaning looks at a cheap alternative to buying a flash and expensive monitor.

Does your family take particular satisfaction in watching *Eastenders* when you really need the TV to play *Chaos Engine* on your CD32 or write a letter to the *Frontier* fan club on your A1200? Yes? Then why not kill two birds with the one stone and invest in a secondary TV. You'll be able to play and watch what you like – and tell your siblings to get lost whenever they want to watch it. With this in mind I took it upon myself to check out one of the sharpest TVs available, the Sharp DV-3750H TV.

It would be wrong to describe this Sharp unit as a dedicated display for the Amiga, or even a monitor, it isn't. It is a ordinary, low cost TV that is now available from many Amiga dealers. And as such it can be used as a secondary TV as well as a display for your Amiga.

Setting it up is fairly straightforward. Plug it in using either a normal RF/aerial cable or the supplied Scart lead. Using the Scart lead is

MICROVITEC 1438 MONITOR

Since Christmas there hasn't been very many new Amiga compatible monitors available – in fact there's been none! Now however, a UK based monitor manufacturer has produced a monitor capable of working on all machines. Andy Leaning tried it out.

If you've tried to buy a monitor recently you'll have hit a slight snag. That aren't any! Stalwarts of the low resolution Amiga market, the 1048S and Philips 8833, aren't available anymore, neither are the AGA hugging 1940 and 1942 models.

So what can you get instead? Well, since Christmas there hasn't been an obvious alternative. Sure, you could get hold of PC SVGA/EGA thingy monitors but trying to use these in low resolutions on an Amiga will prove troublesome.

Now, however, MicroVitec are making a concerted push into the Amiga market, with a monitor suitable for any Amiga. But is this MicroVitec 1438 monitor any good?

MONITOR MONSTERS

Unless you happen to be wearing a NASA radiation suit, don't even consider using a monitor. Yes, the radiation levels coming out the back of your monitor will distort your DNA and turn you into a hideous monster the like of which could only be matched in the ugly stakes by our very own Tony Dillan!

Seriously, the rumours regarding the amount radiation coming out the back of monitors have been doing the rounds almost as long as monitors have been used! In reality, monitor radiation is far less serious than most people believe. But if you are worried about such things, or environmental concerns, you'll be pleased to know that the MicroVitec addresses several of these issues and complies with the Swedish MPR II standards for environmental standards. It has also passed stringent tests by the EEC (directive 90/270/EEC, passing both EW 29241 Part 3 and ZH1-618 if you're interested).

HEY GOOD LOOKING

Well, where looks are concerned it's certainly no super model, but it's also no worse than any other monitor on the market. It quite happily sits on top of an A4000, and whilst being slightly larger than the now sadly extinct 1084, it should fit on most tables, computer desks and shelves (or whatever else your Amiga is used on). Its colour scheme (being white-with-a-hint-of-Commodore-Grey) will go nicely with most Amigas, whilst the tilt and swivel base will allow you to position the screen conveniently for most locations.

Connecting it to the Amiga is slightly more difficult than other monitors but is still easy enough for even the most inexperienced of users to handle. However, the monitor was designed for use with

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EASE OF USE

You shouldn't need to mess around with adaptors when you're paying £300. Otherwise very straightforward

VALUE FOR MONEY

Not brilliant, but good value for money, and pretty cheap compared to what you could end up paying.

EFFECTIVENESS

Does what you'd expect and does it well, although it should have internal speakers.

FLEXIBILITY

Handles all Amiga screen resolutions, what more could you want?

INNOVATION

Doesn't really break any new ground, but then what can you do with a monitor as far as R&D is concerned?

Any Amiga owner would appreciate this monitor.

Solid, reliable performance: does everything you'd want.

OVERALL

84%

recommended as this will give better quality pictures than a normal aerial cable. You'll also have to use the Scart connector if you have a higher end Amiga, such as an A4000, as these don't have TV modulators (the slot where the aerial cable normally goes).

This is really a television, which means that it doesn't automatically display the pictures from your Amiga. To do this you must first tune it in. This isn't hard to do (it's the same as having to tune in a video recorder) as the remote control has buttons for searching and it's simply a process of selecting the auto channel search and letting it hunt through the various channels until you can see the Amiga display and hear the sound. Then all you need to do is fine tune the picture (although this may not be necessary) to give the best results and you're away.

Given the higher price of this unit compared with cheaper models available it would have been nice to see some kind of channel numbering indicator while searching, instead of the naff on-screen display which simply consists of a row of dots, along with an indicator bar moves as it changes channels - I mean, it could be a lot more informative.

ARTHUR, MICHELLE...

Having tuned in there's not a lot else to it. Contrast, Colour, Brightness and a picture sharpen mode (picture tone) can all be controlled via the remote control, but there aren't any buttons on the front of the set. This last point actually proves quite annoying after a period of time as you often need to change the brightness and contrast and rather than just leaning forward and pressing the button, you

need to keep the remote control close by. Given the intended use with an Amiga, and that most users will therefore be using it at close range (and would simply be able to lean forward to change the contrast etc) it is strange that most dealers have chosen a TV that doesn't have these controls within easy reach, requiring instead, as it does, you have to hunt around for a remote control, which will frequently disappear under a desk of paper work!

The pictures are bright and clear, and the sound respectable. The only slight niggle I had concerned the sound. It was a little tinny and lacked depth. Also, the review sample had a minor fault in the tube producing a slight blurring at the top of the picture but this glitch was only present on the first review sample and didn't appear on others I checked. Other than that there was little to fault with this product.

GRANT AND PHIL

This Sharp TV presented me with a problem. How can I describe it? It offers pretty standard picture quality (for a TV), reasonable sound reproduction (if a little on the tinny side) and is fairly simple to use.

If you're in the position of sharing the family TV, and the evening entertainment is a choice between Eastenders and Microcosm then the Sharp TV could be the answer. It provides a simple, cheapish, alternative to the main family box, and in this light does all it sets out to. As long as you don't buy it expecting to get a display that's superior to a TV's then you won't be disappointed. **CU**

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EASE OF USE

Lack of controls on the front of the monitor proves annoying and it should really come pre-tuned.

VALUE FOR MONEY

A little expensive compared to some of the TVs available from high street multiples, but not excessively so, and it has the advantages of a Scart socket which is often missed on cheaper TVs.

EFFECTIVENESS

It does its job fair and simple, and does it well.

FLEXIBILITY

It's a TV, it's a monitor, what more do you want! Suitable for all types of serious application.

INNOVATION

Nothing new or exciting.

"A good, solid, secondary TV suitable for use with an Amiga. No more, no less."

OVERALL 80%

PC, which explains why the cable coming from it has a 15-pin D type plug on the end (standard for PCs) which won't directly fit into the Amiga 23-pin monitor port. To solve the problem a conversion cable is included, which goes between the two, providing a 23-pin plug that can then be fitted into the Amiga's monitor port - just fit the conversion cable in place and away you go.

In display terms the monitor can handle all Amiga display resolutions, from low res, through ECS productivity, and up to and including AGA resolutions. As such it is a considerable improvement upon the 1084 and 8833 (which couldn't handle the new AA chipset resolutions of the A1200 and A4000), whilst also offering a slight improvement over the later Commodore 1940 and 1942 models which couldn't handle the Super 72 mode.

IT'S ALL CLEAR!

But what about picture quality? Well, the 28 dot pitch ensures that all pictures are crisp and sharp, which means that gamesplayers will appreciate the clear, well-defined detail on screen and clean colours. Serious users will find the quality even more pleasing, with all resolutions displayed sharp and well focused.

For reliability and stability we checked the monitor through a battery of tests to identify various flaws in the monitor's design. These all showed that the 1438 is built to a good standard. Intensity, image size regulation and colour accuracy trials all produced results that more expensive monitor manufacturers would be pleased with.

The only minor glitch in the display was that monitor tube produces a slightly dark image, resulting in slightly dim colours, but this can be corrected by increasing the brightness. Overall, colours and picture quality are clear, sharp and clean.

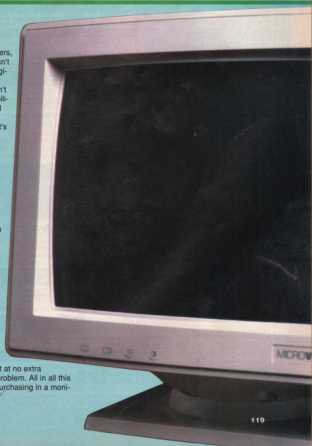
I CAN'T HEAR YOU!

One major omission in the 1438's specification is speakers, or rather lack of them. This isn't really surprising as it was originally designed for the PC market and as basic PCs don't have very good sound capabilities PC monitors haven't until very recently needed them.

On the Amiga, however, it's a different story, and any Amiga monitor should have built-in speakers. However, don't give up just yet. Most dealers that are selling the MicroVitec are providing speakers with it, and in several cases they are including them free, so you'll still be able to hear the latest CU Amiga OctaMed samples on over cover disk!

THE FINAL PICTURE

This is a fine monitor with decent picture quality. It does practically everything you'd hope for and its internal circuitry is well put together. It is also priced very fairly for what it offers. It would have been nice to have built in speakers, but as some Amiga dealers provide external speakers with it at no extra cost anyway this isn't a big problem. All in all this is a peripheral that's worth purchasing in a monitor starved world. **CU**





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So you want to be a programmer?

1-D6/A0-A6,-(A7) ;07570

The Amiga may be one of the most powerful computers ever, but how do you go about programming it? John Kennedy looks at the current batch of coding tools for DIY fans.

At times, programming the Amiga may seem to be an impossible task. The Workbench may be user-friendly, but the Amiga can sometimes appear almost impenetrable to would-be programmers, leaving its excellent graphics and sound hardware totally out of reach.

Older computer users will probably remember a time when home computers came with a programming language (usually BASIC) built-in, but now the younger contingent of users may look at games such as *StarDust* and think, "How could I even start to write something like this?"

Thankfully, rolling up the sleeves and getting into the Amiga needn't be difficult, and there is an ever growing number of ways of doing it. From the politically correct Pascal to the hard-hitting Assembler, possibly the only language missing from the Amiga developer's toolkit is COBOL, and there shouldn't be many tears shed on that front.

Still though, the novice Amiga programmer is faced with many decisions: Which language to use?

What reference books are needed? Is it expensive?

WHAT IS A PROGRAMMING LANGUAGE?

At the heart of the Amiga is a micro-processor unit (also known as a CPU - Central Processor Unit) is the chip which controls the rest of the computer. The video display, the disk drives, the keyboard: all these devices are controlled by other chips but all are orchestrated by the CPU.

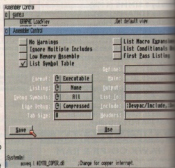
In an Amiga computer the CPU runs a program, a list of instructions, called the Operating System. The Operating System (OS) provides a way of loading and running application programs, including the Workbench environment, as well as games and utility programs. The OS makes it easy for these programs to share the computer's resources, such as memory, disk access and use of the parallel and serial ports and input and output. The OS resides internally in special permanent memory chips called ROMs, and is also partly loaded from disk at boot-up time.

In order to create your own programs, you need to produce a list of instructions which the CPU can understand. These instructions are called Machine Code, and they are the only instructions the CPU can work with. Every program must be converted into machine code at some point in order for it to be executed.

It's possible to program directly in Machine Code using a program called an Assembler, such as HiSoft's DevPac. DevPac will allow you to enter a list of assembly language instructions which it will convert into machine code ready for execution.

It's almost an understatement to say that programming in Assembler is a very time consuming task.

Something which appears very simple, like displaying a letter on the screen, can take many, many lines of



All aspects of the Assembler - which chips your computer is using, whether the code is to 'stand alone' or be mixed (linked) with other code - can be set from the editor.

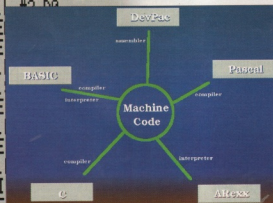
machine code instructions to achieve.

The next step up from Assembler in the language evolutionary ladder is called 'C'. A program written in C looks a lot closer to English than Assembler, as unlike Assembler each C instruction can represent dozens of lines machine code. Creating functions and subroutines is a lot easier in C, and it's also possible to handle complicated data structures. The advantage of C is that it loses hardly anything of the power of Assembly language, but yet it is still possible to deal directly with the computer hardware.

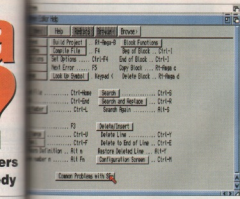
A C source file (the list of C instructions) must be 'compiled' into machine code before it can be used. A typical program to do this is DICE or SAS/C.

BOOKS

If you plan on making use of the Amiga's intuition operating system, or you need to know what makes the Amiga tick you'll need some documentation. The official works are best - make sure you get the dark grey third edition - and start off with the Libraries volume, as this includes general tips on many aspects of Amiga programming. The source code in these books falls in C, by the way is widely available from many Bulletin Boards.



>MOVE.L D1-D6/A0-A6,-
MOVE.L A0,A2
MOVE.L D0,D2
LEA \$756D8F8,A4
MOVE.L 4.W,A6
LEA \$756EE48,A3
MOVEQ #0,D1
MOVE.L #D6,D0
BRA.S \$75671F4
MOVE.L D1,(A3)+
DBF D0,\$75671F2
MOVE.L A7,\$1830(A4)
MOVE.L A6,\$1558(A4)
MOVEA.L \$114(A6),A3
MOVE.L \$AC(A3),D0
BEQ.S \$7567216
LSL.L #2,D0
MOVE
MOVE
LSL.L
BRA.
MOVE
SUB.
MOVE
SUB.
ADDI
MOVE.L \$13D8(A4),D0
CMP.L \$13D8(A4),D0
BCC.S \$7567284



With full on-line hypertext help screens, the SASC editor gives even dedicated text editors a good run for their money.

Pascal is a programming language which, at first glance, looks at lot like C. It is subtly different though and, in fact, is a lot more user friendly and forgiving. Many colleges and universities use it to teach the fundamentals of programming. Pascal is an elegant language which tries to be as straightforward as possible, whilst still offering much in the way of functionality. Pascal is another compiled language, and therefore it runs quickly. Like C, Pascal is a very structured language - code is packaged into clearly separated functions which helps minimise errors.

BACK TO BASICS

BASIC has always been a popular programming language on home computers, and the Amiga is still well served. AMOS and Blitz Basic are derivatives of BASIC which have been heavily expanded to include many Amiga specific extensions. For example, if you wanted to write a program in C to load an image from disk and display, it would need many lines of code. You would need to prepare the screen, access the floppy drive, decode the graphics data stored in the file and then work out a way of copying it to the screen display. With AMOS and Blitz this can all be achieved with one or two simple commands.

The disadvantage of these

can buy a compiler for AMOS if you need some extra speed and the capability to make programs 'stand alone' without the need for a BASIC interpreter. ARexx is a BASIC-esque language that is supplied as standard with all PostWorkbench 1.3 Amiga systems. Its main purpose is the expansion and inter-connection of existing application programs - for example, adding a word count feature to Cygnus Ed or linking The Art Department with a third party video digitiser. ARexx can also be used as a programming language in its own right, but unfortunately it is interpreted rather slowly. ARexx isn't a particularly fast language by itself. However, it is still eminently suitable for file manipulation programs and general small utilities.

There are other development systems available. CanDo and Helm are two which actually use a heavily graphics orientated approach to creating programs, as well as the programs themselves. These systems are great for producing multimedia systems, such as graphic adventures or Point of Information/Sale systems.

You can even write basic file maintenance programs if you put your mind to it, but they won't run particularly quickly.

INTUITION POWER

The Amiga's operating system is an incredibly powerful and flexible system. Arguably second only to the

state-of-the-art NeXTStep platform, Intuition is a fully multitasking operating system which can be relied upon to create a reliable and consistent user interface: but only if you want to use it.

It's entirely possible that your program won't benefit from pull-down menus (how many arcade games have you seen which do?), but if you're writing an application it makes sense to use the code that's already present.

How the Intuition system can be used depends largely on the programming language you are using. At the most basic level, using

Assembler or C will require you to set up data structures and call the operating system routines or 'libraries'. This isn't a particularly easy thing to learn about (one mistake and you Guru the computer), but once you have written one application you can usually re-use your code with only minor alterations.

A more user-friendly development system, Blitz Basic 2 for example, includes BASIC commands for controlling the Menus and Requesters. This simplifies the construction of normal application programs greatly. The user of your program normally won't be able to tell if your program was written from scratch in assembler, or using Blitz as the Intuition means will look the same.

WHICH LANGUAGE SHOULD I USE?

There are many different programming environments available, and picking the right one can be a difficult business. If you want to jump right in at the deep end by equipping yourself with C, a good compiler and all the necessary documentation, it could cost you over £350 - but there are plenty of cheaper alternatives.

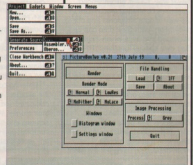
Perhaps the easiest system to start with is with Blitz Basic. The integrated editor and compiler makes writing programs quite straightforward, and

TOOLS

No matter what you might think of 3am when you need to squash that bug, you are not alone. Other programmers have been before you, and the more altruistic ones have left some tools to help you.

Take GaeTolbox for example. Here is a program that will save you weeks if you use standard Intuition menus and gadgets in your programs.

Using GaeTolbox you can actually draw your program's user interface on-screen, and then click a button to generate the source code. You will still need to know what to do with the code, but believe me using a program like this can not only save your sanity but improve the appearance of your program.



As a program which helps you create programs, GaeTolbox is an absolute must. Draw your user-interface on-screen and let the program generate all your source code. Invaluable.

Blitz is certainly powerful enough to create both serious applications and stunning arcade games; check out Skidmarks if you don't believe me.

If you have your heart set on learning C, the DICE compiler is an excellent place to start. Unfortunately, the PD version won't come with the Commodore include libraries - the routines which you need to access the operating system. You can either get them directly from Commodore for about £25, or else pick up the March/April Fresh Fish CD-ROM (reviewed on page 134) which happens to contain a drawer with them all inside.

Remember to check out the PD libraries for more obscure languages. E is one to watch for, promising the power of C in an easier to use way.

Your choice of programming language is determined by several factors. Do your programs need to run extremely quickly? What previous programming experience do you have? Will graphics and sound be important to your programs? How much can you spend on the programming environment?

In the chart to the left, the most common Amiga development languages are rated. Please remember that although C has a low score for, say, graphics support, getting hold of the necessary C source isn't very difficult - if you know where to look.

COMPARISON CHART

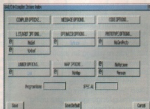
	Assem	ARexx	Amos Devpac	Blitz	SAS BASIC	HiSoft BASIC	CanDo C
Pascal							
Code size	1	4	4	4	3	4	5
Execution Speed	5	1	4	5	5	4	2
Code size	5	3	3	4	5	4	2
Compiled/Interp	C	I	I	C	C	C	I
Graphics/Dev	1	1	1	5	1	2	3
Debugging	3	4	4	5	4	4	3
Price	\$1.95	Free	\$4.95	49	749	79.95	\$9.95
Avail	HiSoft	CBM	Euro	Merid	HiSoft	HiSoft	Emerald

There are C compilers in the Public Domain (DICE, WORTH C) but the best is SAS/C from HiSoft. Likewise there are PD Assemblers available, but DevPac is the best. Note that Blitz, SAS/C and HiSoft's HighSpeed Pascal include an integral assembler.

HiSoft tel: 0525 718181 • Europress Software tel: 0625 856444 • Meridian tel: 081 543 3500 • Emerald Creative Technology tel: 081 715 8866
Key: 1=poor, 5=excellent

SAS/C v6.51

There are several C compilers in the Public Domain (and Shareware) Libraries, but none can compare to SAS/C. The update from v5 to v6 was such a major step forward in terms of compiled code speed and compactness that for a time it seemed no further advances could be made. SAS/C has overruled this assumption, by adding C++ compatibility and doing it in a very clever way. C++ is an 'enhanced' version of C, offering much more in the way of data structures and object orientation. With C++, data can be packaged into units which include their own special functions. The result is an excellent development system for large and complex systems. Normally, C++ programs are processed into standard C files which are then compiled in the normal way – a rather time consuming business. SAS has managed to include the C++ parts of their compiler as standard, which means that there's no mucking around. Even when debugging using the excellent



One of the new V6.51 features is support for the default Workbench fonts. A small, but nice, point.

CodeProbe system, C++ code can be examined in every detail.

For time critical applications, the special profiler will examine your programs and break down the amount time each function is used.

Entering code is made easy with the excellent editor which gives many dedicated text editors a good run for their money. With multiple files, split screens and integration into the C compiler, you won't need to spend any more cash on a good entry system. The on-line help comes in

handy when you can't face the thousand plus pages of documentation which come in the box. As long as there are programs of this quality available, no one can ever say the Amiga is in trouble. This is truly professional level software.

FEATURES IN SAS/C V6.51

- Includes a C++ implementation, compatible with the AT&T Cfront. C++ files can be compiled like any other C files.
- Special code is provided to take advantage of any 68040 and 68882 chips present. ● Improved peephole optimizer.
- More efficient code generally. ● The CodeProbe debugger has been improved. ● The built-in Assembler supports chip-memory only code. ● The system default font is recognised and used. ● Improved profiling to beat bottlenecks in your programs. ● Workbench programs can deal with 'toolboxes' as standard C arguments.

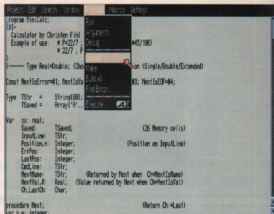
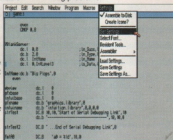
DePac v3.04

Compared to earlier versions, this DevPac has a much improved editor which makes the rather stressful process of Assembly language programming much more enjoyable.

In fact, after using several Public Domain assemblers, DevPac is a complete joy to use. It features the same excellent editor as HighSpeed Pascal, and once again all the options are immediately available from pull-down menus.

The speed of the assembly process is blinding (especially after using a C compiler) and the many processor and optimisation options means that the code can be tailored to your exact specifications. If you need ultimate control, there is no other way. The integrated environment makes DevPac

The DevPac Assembler comes with its own text editor, which will save you a lot of both time and money.



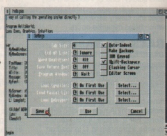
HiSoft Pascal is compiled directly to machine code, in the same way as a C compiler. Pascal programs won't hang about, which makes it very useful for commercial software development and for teaching.

HighSpeed Pascal v1.10

Loved by academics, it's only until very recently that Pascal has lost its position as 'top language' to C. Designed to teach structured programming techniques, Pascal is not only a perfect system to teach yourself programming, but it is also an extremely powerful language in its own right.

Rather than stop with a simple text only implementation, HiSoft's HighSpeed Pascal comes with all the necessary libraries, or 'units' as they are known, to write proper Intuition based programs. It's even possible to hit the hardware if this is your cup of tea.

The typical HiSoft environment is very well designed, with an excellent editor allowing full control over all the. At first glance, Pascal programs look a little like C, but on closer inspection they are actually rather easier read and therefore write.



The HiSoft editor is very good, and all compiler options can be set without leaving it.

compilation options. An in-line assembler allows for more advanced use, and the ubiquitous MonAm debugging tool can help keep track of what exactly is going on.

HighSpeed Pascal is also largely compatible with the extremely popular IBM PC-based Turbo Pascal system. Obviously there are differences to take advantage of the Amiga's more advanced hardware, but converting existing programs won't be a nightmare task. A version of the 'graph' unit is included which will make converting handling graphics a lot easier.

If all adds up to a perfect introduction to power programming, or a gentle way to get to know languages such as C and C++.

THANKS!

Thanks to HiSoft for providing many of the language implementations mentioned in this article. You can contact them on 0525 710 181.

BASIC Instinct

HiSoft BASIC 2

at last!



HiSoft BASIC 2 shows off its AGA support

The Compiler

HiSoft BASIC 2 is a compiler that feels like an interpreter when you use it from within the integrated environment. It takes source code either directly or via the *include* statement and produces fast, efficient 68000 code; it is also possible to pre-tokenise your source code to obtain maximum speed of compilation. The syntax is highly compatible with other implementations including Microsoft QuickBASIC™ (PC), AmigaBASIC etc. allowing modern, structured programming with a high degree of portability between different machines. The graphics commands built into HiSoft BASIC let you take advantage of the AGA chip set.

You can link with assembly language and SAS/Lattice C programs and compile to memory for testing or compile to disk to produce your final, standalone masterpiece.

The Debugger

There are times when your program does not behave in the way that you planned. On these occasions, you can use TRON/TROFF statements to trace execution by line number, or you can invoke the HiSoft BASIC debugger.

This is a medium-code-level debugger, which displays the source code and object code of your program at the same time. You have access to all your BASIC sub-program and function names and you can step through the BASIC source code by line, setting breakpoints as appropriate.

The Libraries

HiSoft BASIC 2 comes with libraries that let you access the features of all versions of the Amiga operating system from Workbench 1.3 up to Workbench 3.1. The standard Amiga names are used, as described in the ROM Kernel manuals, making it easy to translate examples from C. There are examples of using and displaying IFF files, Datatypes, Gadtools gadgets & menus, Tasks, Sound etc.

The Package

HiSoft BASIC 2 is supplied with a comprehensive, 640-page manual which, in addition to user and reference sections, also contains an extensive tutorial on using the package.

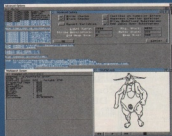
The system works on all Amiga computers with 1Mb or more of memory, at least one floppy drive, keyboard and mouse, in all 80 column screen resolutions. We recommend 2Mb of memory and a hard disk if you intend to work on longer programs or to take full advantage of the new operating system features.

Registered users of HiSoft BASIC version 1 can upgrade by telephone - please call for information

HiSoft BASIC 2 is a complete development system which is ideal for both the professional and the casual programmer.

Your programs can be written with the integrated, multi-window editor where there is a complete range of features that allow you to create, edit and run your BASIC programs without ever leaving the comfortable interactive environment: block marking with the mouse, cut, copy and paste, bookmarks for quick reference, fast, case-sensitive search and replace, flexible organisation of your text windows, compilation at the touch of a key and much more.

The editor takes full advantage of the new features of Workbench 2 and Workbench 3 and there is a version of the editor that emulates many of the advanced features of Workbench 2 under Workbench 1.3.



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PD

Can you do a good Sid James laugh? If so, sample it and send it to us at the usual address. For now, though, let Tony Horgan take you through the latest games and demos in the public domain.

BRAIN STATE IN A BOX demo

What a trip! This one cuts all the bad stuff and gets straight down to the job of messing up your head. Unfortunately, you'll need an AGA Amiga with extra RAM to experience it.

If spiny dots and 3D flights are your bag, you'll love this. Even though there are only three main effects, it keeps on going for ages before it repeats, and even then, you can leave it to loop for as long as you like. The main effect is a simulated video feed, back loop, with a random pixel generator to keep the colours flowing. In other words, you get loads of random colours spurling out from the centre of the screen - spot on.

There's also a real-time-generated 3D flight around a bay of islands. The best bit is the user-mode. This lets you play around with the effects yourself, wobbling the colours about with the mouse, and even soaring around the fractal islands. The user-mode didn't want to play on the office A1200, but it worked okay on the A4000 040. Essential for all spiny gabbers.

Available from: Visage Computers, 18 Station Road, Ilkestone, Derbyshire, DE7 5LD. Tel: 0602 444501. £2.00 including P+P.

90%

SCENE



MELLOW GABBER VOL 2 music demo

Mellow gabber, what a strange concept (considering gabber is the fastest, most insane form of dance music ever devised). Spookily enough though, this demo starts off sounding pretty good, and spookier still, it sounds like mellow gabber. A distorted bass drum kicks away slowly, while scary noises and voices wash around in the background. After a while it inevitably speeds up to a more danceable tempo, from where it turns into a slightly more anarchic variation on the 2 Unlimited theme. Cheesy organ riffs loop over some hard beats and basslines, tempting me to rip the tune and remix the better bits. Should find plenty of fans though.

Available from: Express PD, Magazine Business Centre, 11 Newark Street, Leicester, LE1 5SS. Price: £1.65 including P+P.

79%

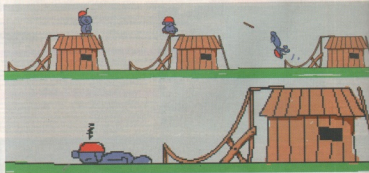
FLYING LESSONS animation

Meet Bob, a cuddly little blue thing. One day, whilst sunbathing in the park, Bob dreams that he can fly. Waking up to find that he can't he decides to rectify the situation and sets off down to the garden shed to knock up a rocket pack. The results of this and his later attempts are predictable but fun in a *Road Runner* kind of way.

However, it looks original - not just another Eric Schwartz rip-off. It's quite funny too, although the lack of any sound effects is a shame. Animation fans shouldn't miss it though.

Available from: 17 Bit Software, 1st Floor Offices, 218 Market Street, Wakefield, West Yorks, WF1 1DH. Tel: 0924 366962. Disk no. 3026. Price: £2.00 including P+P.

90%



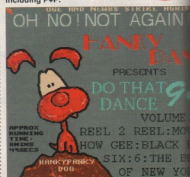
DO THAT DANCE music demo

Three tracks: I Like to Move It (Reel 2 Real), How Gee (Black Machine) and Bells of New York (Six-8s) mixed together one after the other and stuck on a disk.

The mix isn't exactly adventurous, but runs smoothly enough from one track onto the next. Most of the samples sound good, although the breakbeats are a bit scratchy. Not a bad effort nonetheless, and well worth while if you're into any of the three tracks.

Available from: Mercury PD, 37 St Augustine Road, Chadwell Street Mary, Grays, Essex, RM16 4NU. Price: £2.00 including P+P.

77%





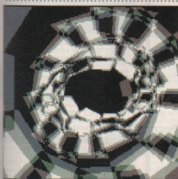
ASSASSINS 156

game compilation

As usual, this Assassins compilation is a mixed bag. There are three games: Darts, Quackers and Karate Champ. Fans of the sport of darts will no-doubt squeeze a bit of entertainment from the first, simple as it is. Quackers is the most impressive of the three. It's a simple platform game with no frills, but it plays okay. Then there's the hilarious Karate Champ. This is a hopeless case of the coin-op that invented the beat 'em up theme. The sound effects are the best bits: "Ooo!" "Cuch!" "Coff!". Who needs commercial games eh?

Available from: Roberta Smith DTP, 190 Falloden Way, Hampstead Garden Suburb, London NW11 6JE. Disk no. ASI 156. Price: £1.40 including P+P.

69%



FRIDAY AT EIGHT

demo

A shortie, this one, but a goodie nonetheless. It gets my vote from the off, thanks to its high-speed 3D zoom tunnel effects. Then it's over to some zooming 3D logos, followed by a load of blurred kaleidoscope effects, building up in speed and intensity to a bit of a sexy crescendo. After all that excitement, it sits back up and mellows out with another tunnel effect, this time a more chilled version, followed by the credits. It's over almost before it's begun, but it's good while it lasts. Available from: Visage Computers, 18 Station Road, Ilkestone, Derbyshire DE7 5LD. Tel: 0602 444501. Price: £2.00 including P+P.

75%



REN AND STIMPY

slideshow

For those who have never seen it, Ren and Stimpy is just about the maddest, most stupid cartoon series ever, featuring the childish exploits of a disgusting-looking Chihuahua dog, and his brain-dead mate that I think is supposed to be a cat - not that you'd guess to look at him. This is a slightly disappointing slideshow taken from the Haunted House episode. All the pictures are displayed as quarter-screen HAM images, and although the digitising is okay, there's not much colour in them. Full-screen 64 colour pics might have been a better option. Still, there are enough frames for you to be able to watch the slideshow almost as a cartoon in itself, following the story through from start to finish.

Available from: David Parkes, Freestyle PD,

108 Woodside Way, Short Heath, Willenhall, West Midlands, WV12 5NH. Tel: 0922 404023. Price: £1.65 including P+P.



80%

DISKMAGS

UPSTREAM ISSUE 8

This is a mag for anyone who is seriously into the demo scene - not just the demos themselves, but all the gossip and bitching that goes on between the various coding teams. It's a bit like Coronation Street for hackers really - Whiplash has renamed himself Fizban, Stranger has been thrown out of DCS, and Terminal Silence received a phone bill for \$1422! Exciting isn't it?

Apart from that kind of stuff, there are opinions from around the scene (make demos hard disk installable), and other general scene-related rants and features. Upstream is totally dedicated to text articles, so you won't find any utilities or demos on the disk, although there is a tune to keep you entertained.

Recommended for the scene-junkie, but not for the casual demo fan.

Available from: Cynotic PD, Office 01, New Enterprise Centre, Little Heath Industrial Estate, Old Church Road, Coventry CV6 7NB. Tel: 0203 681687. Disk no. 00263. Price: £2.00 including P+P.

76%



AM/FM ISSUE 18

Aimed at Amiga musicians, AM/FM is one of the more individual disk mags around. Instead of cramming the disk full of as many articles as possible, AM/FM's creators concentrate on publishing more interesting and useful articles, leaving room for some handy utilities on the disk.

Issue 18 includes reviews of the Toccata 16-bit sampler, Auril Illusion, CDs and readers demos. There are also features on buying your first synth, 16-bit sampling on the cheap, letters and news. In general the articles are very well written. All of the writers on the diskmag seem to know what they're talking about, and give good advice in the reviews and the occasional tutorial features.

On the software side, you get a demo version of the Auril Illusion sample editor, General MIDI Pitcher 1.1 demo, and APForsky (a drum machine system). Two tunes are included, and there's even a batch of MIDI song files too. With all this software in addition to the magazine, it makes a very worthwhile buy for any enthusiastic Amiga musician.

Available from: Cynotic PD, Office 01, New Enterprise Centre, Little Heath Industrial Estate, Old Church Road, Coventry CV6 7NB. Tel: 0203 681687. Disk no. 00251. Price: £2.00 including P+P.

68%

AM/FM Music Vol. 92 by Tel/c & e-mail

AM / FM

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1992 Cynotic PD. Tel: 0203 681687. Disk no. 00251. Price: £2.00 including P+P.

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- 3619 SILVERBLADE Helicopter Shoot Em Up!
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- 3601 GAMES GALE 10 More Games From M. Henderson
- 3600 GAMES GALE 11 More AGA Comp. Stuff
- 2996 TASKFORCE Superb! Remember LaserQuest?
- 2993 ZIP GAMES 1200 AGA Comp. of 2 Player Games.

AMIGA ANIMATIONS

- 3626 FLYING LESSONS Excellent Anim. Requires 2MB
- 2983 (ABC)CHARLEY CAT "In Sickness & In Health" 3MB
- 2862 (ABC) CHARLEY CAT "XMAS" 2 MB
- 2870 (ABC) CHARLEY CAT "Dandruff Duo" 3.5 MB
- 2874 (ABC) G.I. SPY Great 3 Megabyte Animation
- 2840 MR HORNY ANIMATION Great Adult (ad) Animation!
- 2827 (ABC) CHARLEY CAT 4 "Moustardering" 3.5 MB
- 2925 (ABC) CHARLEY CAT 3 "How to catch a Canary" 3MB
- 2923 (ABC)CHARLEY CAT 6 "Charles At The Flax"
- 2922 (ABC) CHARLEY CAT 2 "Down At The Sea"
- 2872 (ABC) MEAN MACHINE Great Aid for Commodore CD32 By Craig Collier's 3.5MB needed!

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PD UTILITIES

No mon, no fun. Don't worry because Tony Horgan is here with this month's latest batch of PD releases.

FRESH FISH CD compilation

Fred Fish is the undisputed King of Amiga Public Domain software. He seems to have been around since the very dawn of the Amiga, collecting the best (and sometimes worst) of the free software available and collating them to produce his famous 'fish disks'.

Recently, Fred made the decision to change from distributing floppy disks to selling CD-ROMs, but in the process he has done a lot more than simply copying the disks across. In fact, his CDs offer probably the best way ever to get the latest in Amiga programming talent.

The CD which we were sent came from PD Soft and is dated March/April 1994. Fred hopes to produce a new disk every one to two months, each one being a mixture of old and new material. In theory you should be able to buy every other disk and still obtain all the programs and files.

This CD-ROM contains 639Mb of software, of which approximately 59Mb is totally new material (Fish Disks disks 951 to 975) and programs from the Amnet library. The rest of the disk contains some amazing finds, including 284Mb of useful utility programs such as the GNU C++ compiler and PasTeX - a full TEX (a text-based DTP) system.

Programmers will love this disk. Not only is there a full complement of utilities, compilers and programming tools, but the distributable Commodore Native Developer Kit is also included. If you do any C programming on the Amiga you'll know how tricky it is to get hold of the right information; well here it is, all on one disk. In the other drawers you'll find plenty of text files (such as hardware and software reviews) and a comprehensive Amiga FAQ list (Frequently Asked Questions). There are also two games present, but this is a collection for the more dedicated Amiga user.

Fred has really paid great attention to the way files are stored on the disk. Not only are the useful utilities ready to run, but many files are already archived for the owners of Bulletin Board Systems to provide on-line.

Obviously, you'll need a CD-ROM drive to use this disk, but that needn't be a major problem. If you don't have a 'big box' Amiga and a CD-ROM drive, the Commodore A570 drive is still available for A500Plus owners, and (assuming you have an external floppy drive) any spare CDTVs can easily be brought back into service. Even C032 systems can be used using the new serial cable adaptors (see elsewhere for review).

Available from: PD Soft, 1 Bryant Avenue, Southend-on-Sea, Essex, SS1 2YD. Tel: 0702 466933. Price: £19.95 (plus £1 P+P). Or available from: Fred Fish, Amiga Library Services, 610 N. Alma School Road, Suite 18, Chandler, AZ 85224-3687, USA or fax 0101 (602) 917-0917. Price: \$19.95 plus \$5 for airmail costs.



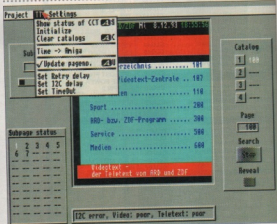
Resulting in a drawer of the Fresh Fish CD-ROM you'll find the latest pictures from NASA regarding the Hubble Space Telescope. There is so much data on this disk it will take weeks to look through it all.

AM/FM SAMPLES 18 sound samples

How appropriate, the 18th sample disk released by AM/FM diskmag people contains exactly 18 samples. The sounds themselves are all 'big pads' (big synth atmospheric sounds) sampled from an exorbitantly expensive synthesiser. Some of these ambient, moody sounds are looped, some are single notes, and others are included in a number of chord variations, ranging from 30K to 65K in size. There's a bit of top-end noise on quite a few of these samples, but this can be remedied with some filtering. Other than that, the sound quality is well up to scratch.

Available from: Cynosmic PD, Office 01, New Enterprise Centre, Little Heath Industrial Estate, Old Church Road, Coventry CV6 7NB. Tel: 0203 681667. Disk no. S0220. Price: £2.00 including P+P.

78%

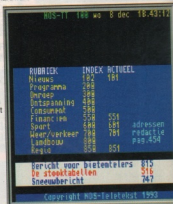


TELETEXT 1.20 teletext receiver

This is half of a software and hardware project that allows you to Amiga to receive teletext. You need to use it in conjunction with a TV (or VCR), but the TV doesn't have to be teletext compatible. Once you've got your pages, you can save them out as ANSI, ASCII, IFF or the program's TT format. Instructions for building the hardware are on the disk. However you'll definitely need some electronic experience if you want to build the hardware. I'll level with you on this one - the DIY bit was beyond me, so I can't say how well the system works.

Accordingly, I haven't scored the program, but if you like to mess about with a soldering iron and fancy a teletext compatible Amiga, it should be worth looking at.

Available from: Cynosmic PD, Office 01, New Enterprise Centre, Little Heath Industrial Estate, Old Church Road, Coventry CV6 7NB. Tel: 0203 681667. Disk no. U0293. Price: £2.00 including P+P.



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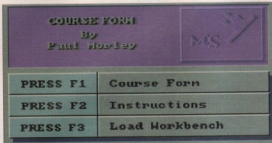
COURSE FORM

horse ratings

If you like a flutter on the horses, but find working out the form a bit tedious, this could be just what you need. *Course Form* acts on the information published in the racing section of most national newspapers. You enter the figures into the program, and it comes back with a rating that tells you how likely the horse is to win. It's as simple as that.

Available from: Roberta Smith DTP, 190 Falloden Way, Hampstead Garden Suburb, London NW11 6JE. Disk no. MUS709. Price: £1.40 including P+P.

80%



PAINT ME A STORY

story maker

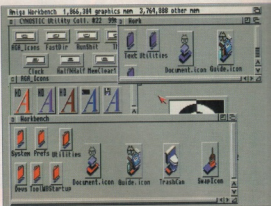
Fancy making your own illustrated children's stories? *Paint Me A Story* is designed exactly for that. There are two parts to the program. The first is the drawing section which has a very basic and quite awkward drawing tools (freehand, line, fill etc.) for you to create the illustrations. The other part is where you enter the text for the story. The text and pictures are then combined, and on you go onto the next page. With a some patience, you should be able to put together some reasonable picture books, but be prepared for a bit of a struggle, as it's not the most helpful program in the world.

Available from: Essex Computer Systems, 118 Middle Crockcroft, Basildon, Essex, SS16 4JA. Tel: 0268 553963. Price: £5.00 including P+P.

75%



Billy Rabbit opened another of his birthday cards. It was from his big brother, Bobby. It was Billy's 5th birthday and he was going to have a party.

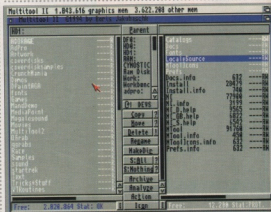


CYNOSTIC UTILITIES 22

utility collection

They're breeding like rabbits! It must be the time of year of something, I don't know, but you just can't move for utility compilations in the PD cupboard this month. Number 22 in the Cynostic series includes some multi-colour AGA icons for your own use, *Half 'n' Half* (turns 1Mb of your A1200's Chip RAM to Fast RAM), *Mem Clear 1.7* (ties up your unused RAM), a clock, *Fast Dir* to speed up directory listings, *TMC* and *Copy Mem* (speeds up RAM access), and *Run ShT* (a replacement for the CLI command *RUN*, which disables AGA for backwards compatibility). You've seen the menu, is Sir ready to order yet? Available from: Cynostic PD, Office 01, New Enterprise Centre, Little Heath Industrial Estate, Old Church Road, Coventry, CV6 7NB. Price: £2.00 including P+P.

78%



CYNOSTIC UTILITIES 25

utility compilation

The most useful program on this disk is *Multi Tool 2.0*. This is a file-handling utility along the lines of *SiD* and *Directory Opus*. Moving files around using the Shell or CLI can be a real pain, but *Multi Tool* makes these operations much simpler. Two directory windows (one source and one destination) are used in conjunction with a few buttons, and everything is controlled by the mouse, so you don't have to remember and type in long confusing path names and so on.

Also on the disk are a couple of other programs. *2Print* is a utility for the HP Laserjet printer. According to the documents, "its only goal in life is to print either 166 characters by 66 lines per page, or 80 characters by 66 lines per page". The other program is *Fast Disk 1.5*, a disk optimiser that speeds up directory listings and loading of files. Available from: Cynostic PD, Office 01, New Enterprise Centre, Little Heath Industrial Estate, Old Church Road, Coventry, CV6 7NB. Price: £2.00 including P+P.

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DARTS Y
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BILLY THE DRAGON Y
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OSWALD Y
Jump the polar bear to safety
JUGGERHEAD Y (2)
Excellent puzzle with a twist!
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Good golf game
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UTILITIES

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Letters for every occasion
DEGRADERS Y
A selection of degraders to solve compatibility problems
TEXT ENGINE V4.0 P-Y
Excellent word processor
EPU HARD DRIVE STACKER Y
Make more room on your HD
ENGINEERS KEY Y
Check out your system
Y MORPH Y
Good morphing program
FREECOPY 1.06 Y
Make back up copies of lots of commercial games
HAMLAB PRO Y
Good HAM graphics program
DISKALIVE II Y
Saves live data
SIMPLE ACCOUNTS Y
Two complete accounts packages
LS LABELS Y
Good label printer
SPECTRUM EMULATOR V1.7 Y
Play your old video games
PRINTER DRIVER GENERATOR Y
Create printer drivers
SHOW WIZ Y
Good slideshow creator

SLIDES

NAGEL SLIDES 4-Y
SURTICE MAN 2-Y
ADAMS FAMILY Y
CATWOMAN Y
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GOLDFISH 1-Y
TERMINATOR 2-Y
TOTAL RECALL Y
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CHARLEY CAT - SNOWJOKE Y (2)
101 BUSES FOR A DEAD CAT Y

18+

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CELEBRITY SPECIALS 4-Y
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ART GALLERY

Hello luvvies, welcome to the gallery - your chance to shine or get slated as the case may be.

GARFIELD

by Philip Nelson, Co Derry, Northern Ireland.



1 Garfield was drawn using Photon Paint V2. First, the background colour was created and then the eyes and cheeks were drawn in. Next, the eyes were flipped horizontally.



2 Then the body was drawn in, starting with the head and moving down to the arms and leaving the hands to last.



3 Next, he drew the legs and the feet and horizontally flipped the left foot.



4 Most of the colours were filled in using the fill tool and freehand tool. The whiskers were added, followed by the parachute and hands.



5 Finally, using the blend command, some shading was added.

JEAN MICHEL JARRE OXYGENE

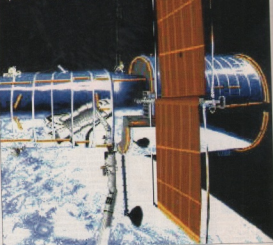


JEAN MICHEL JARRE

This picture was created by David Swainberry, Dagenham, Essex. It was produced in Deluxe Paint III in low resolution with 24 colours.

HUBBLE

by Kevin Water, Surbiton, Surrey.



C&D

by Donald B Hegeman, Horley, Surrey.





CATASTROPHE CORNER

Hmm... a rather interesting piece of work – it portrays the angst of modern man and his everyday struggle to find health, wealth and love. Or maybe not – perhaps this was drawn by a egotistical maniac after consuming too many fizzy drinks and chocolate. This would have been acceptable, if done by a five year old, however the culprit is actually 49 and a half. Oh dear.

MEDUSA

by Engels Hane, Antwerp, Belgium.

1 The eye is drawn freehand with some help from the magnify option.



3 After finishing both the eye and the mouth, the eye was turned horizontally on the other side.



5 A few small details later and it's the finished product.

2 The mouth is added using freehand.



4 A few details were added to get rid of the symmetrical look. Next, a couple of finishing touches to the hair and the face.

THE BIG STATION AT KHERNE

by James Wilson, Christchurch, New Zealand.

1 The basic form is designed using *Scotch Animator 40 Junior*. The image is saved into *DPaint IV*. As a backdrop, a few stars are added using an *brush in cycle mode*. The larger stars are hand drawn and the partial circle in the bottom-left corner is the beginning of a planet.

2 Texture was added to the planet using a combination of shade, smooth and blend for a rocky moonlike look. The texture-mapped effect on the station was achieved by drawing lines with shade turned on and plotting small squares for the speckled effect. Finally, once the texture-mapping is complete, details like the red and white lights are added using *transparency mode*.

FACE

by Derek Heavey, Dublin, Ireland.

1 The outline is drawn in low-res and then the file format is changed to hi-res without stretching the image.



2 Next, the outline of the face and the chin were modified and the hair style was then completed.



3 Shadows were added to give it a 3D effect. Then the neck and body were also shaded in and finally a border was added all around the picture.

CU AMIGA SPECIAL

Welcome to our new look readers' offers. This month sees the launch of our new upgrades for the Amiga A1200.

Unlike some A1200 upgrades, ours are fully PCMCIA compatible. Designed and built in the UK exclusively for CU Amiga - never has it been so affordable to upgrade an A1200 with more memory on a board also capable of adding a 68882 floating point maths co-processor at speeds of up to 50MHz.

How can we be so cheap? Well, thanks to the huge success of our campaign to upgrade all Amigas to a minimum of 1Mb, we have exceptional buying power. Also, because so many of our readers buy upgrades we can use the very latest manufacturing technology to produce our upgrades - and hence give you exceptional value.

So why upgrade your memory? Probably because a memory upgrade is the most versatile enhancement you can make to your Amiga. Apart from the fact that you need it to run the more powerful Amiga software there are many extra benefits too. You can use some of it as a RAM disk, just like a super-fast extra floppy drive. This means you can avoid the cost of a second floppy drive or hard disk. Some software that claims to need a hard disk will run on your Amiga from a RAM disk. A print spooler can save you time waiting for your printer to finish printing before you get on with your work, use your new RAM instead of upgrading your printer or buying an expensive buffer.

For reasons best known to themselves, Commodore 'forgot' a realtime clock for the A1200. Well, we've put it back with our new UK made A1200 clock for just £12.99. Getting more from your Amiga means at least 1Mb, getting the best means adding as much RAM as you can is the essential Amiga upgrade!

MOUSE



ONLY **£9.99**

A superb replacement Amiga mouse.

The CU Amiga mouse is a major enhancement because it uses micro switches for the buttons. Our mouse also has a much higher resolution - 280 dots per inch which means you need much less desk space and you get a much finer control.

MEMORY

AMIGA A500



UPGRADE TO 1MB

ONLY **£14.50**

UPGRADE WITH CLOCK

ONLY **£17.99**

AMIGA A500+



UPGRADE TO 1.5 MB

ONLY **£15.99**

UPGRADE TO 2 MB

ONLY **£22.99**

SCANNER TRAY

Do you own a hand scanner?



ONLY **£54.99**

Are you fed up with poor quality scanning?

Our brand new Scanner Tray will improve your results no end.

Simply place over the image and clip the scanner into it and it will act as a guide eliminating that hand wobbling. This amazing invention is not available anywhere else. Plus, it will help eradicate all that wasted time correcting mistakes in scanned text with our OCR software. It's a pain scanning pages of text only to find that they're littered with spelling mistakes. This software package will cut down on those errors before this even happens.

12 GOOD REASONS TO BUY FROM CU AMIGA

All the products offered by CU AMIGA have been carefully selected as being the best in their class. But top quality does not mean top price. Thanks to our huge buying power, we can deliver to our readers the best products at the best prices.

- ✓ All memory boards are populated with memory.
- ✓ All memory boards are individually tested.
- ✓ Support from a top engineer is just a phone call away.
- ✓ Prices include VAT, Postage and Packing, the

price you see is the price you pay.

- ✓ No minimum order and no credit card surcharges.
- ✓ Memory upgrades carry an exceptional five-year warranty.
- ✓ 28 day no-quibble money back guarantee.
- ✓ We are here until 8pm every day during the week.
- ✓ 24 hour order hotline.
- ✓ Because we only sell a few items, your order will normally be supplied straight from our UK stocks.
- ✓ Your credit or debit card will not be processed if the item you order is not in stock.
- ✓ Experienced sales staff are on hand for when you order or if you need advice before placing an order.

OFFERS

UPGRADES

AMIGA A600



UPGRADE TO 2 MB

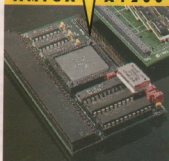
UPGRADE TO 2 MB

99

£24.99

£39.99

AMIGA A1200



A1200 CLOCK

UPGRADE TO 4 MB PLUS
FREE MATH CO-PROCESSOR

CLOCK MODULE

ONLY £149.00

ONLY £12.99

FREE DISK



Each Memory upgrade comes with a FREE DISK including Memory Test Software, making sure that

you make the very best of your new Amiga memory upgrade.

NO PRICE CHANGES DUE TO CURRENT MEMORY SHORTAGE. THESE ARE TODAY'S PRICES - WHAT YOU SEE IS WHAT YOU PAY!

Thanks to the massive buying power of CU AMIGA we can offer our readers the cheapest high quality Amiga memory upgrades and other essential add-ons for your Amiga!

ORDER HOTLINE

0480 891171

Lines are manned from Monday to Friday 10am to 8pm and on Saturday 10am to 4pm. If you call outside these hours

you can place an order by answer phone - just give the information on the order form in the order it appears. You might find it easier to complete the order form before calling so that you can read directly from it.

We allow 28 days for delivery from when we receive your order. For non receipt of goods phone 0480 891171 Monday to Friday between 10am and 5pm.

DON'T FORGET...
FREE DELIVERY!



GoDirect

CU AMIGA - GO DIRECT

VINEGAR HILL, ALCONBURY WESTON,
HUNTINGDON, CAMBS PE17 5JA

AMIGA - THE SAFER WAY TO BUY FOR YOUR AMIGA!
Your order administered safely through GO DIRECT. Enquiries should be directed to the above address, tel 0480 891 171, not CU AMIGA's office.

PRIORITY ORDER FORM

Order by telephone by calling 0480 891171 Mon to Fri 10am to 8pm / Sat 10am to 4pm. There's an answering machine to take your orders at all other times. If you place your order on the machine, leave the exact details in the order they appear on this form.

1. ORDER ITEMS (✓)

- ☐ A500 upgrade to 1Mb£14.50
- ☐ A500 upgrade to 1Mb including clock£17.99
- ☐ A500+ upgrade to 1.5Mb£15.99
- ☐ A500+ upgrade to 2Mb£22.99
- ☐ A600 upgrade to 2Mb£24.99
- ☐ A600 upgrade to 2Mb including clock£34.99
- ☐ A1200 upgrade to 4Mb£149.00
- ☐ A1200 upgrade to 4Mb with 25 MHz 68882£179.00
- ☐ Clock Module£12.99
- ☐ Scanner Tray£54.99
- ☐ OCR Software£99.00

2. CUSTOMER DETAILS

Name _____
(This should be the name written on the Cheque or Credit Card if payment by this method.)

Telephone No: () _____

3. PAYMENT DETAILS (✓)

Credit Card

☐ ☐ ☐ ☐ ☐

Card Number

Switch Issue No _____

To expiry ____/____/____

Cheque (✓) ☐ Postal Order (✓) ☐

Note: Cheques payable to GO DIRECT LTD.

Signature _____

4. DELIVERY DETAILS

Delivery Address _____

Postcode _____

AMIGA Workshop

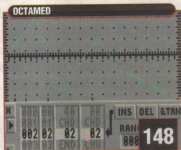


ISSUE 18 JUNE

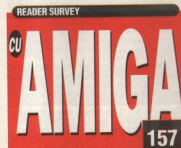
Oh no, you've waited all month for CU AMIGA and no sooner does it come than it's gone again! Just another couple of pages and you'll be at the end of another issue! But worry not dear reader, you've still got Workshop to get through and what a packed little section it is too!

Over the next few pages we cover Comms, programming, questions and answers, your letters and even throw in the opinion of one of the oldest, sorry, wisest journalists in the business.

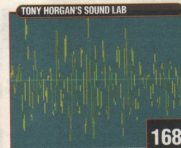
So don't let me hold you up, delve in there and find the answers to your most pressing problems. And remember, even though you are nearly at the end of this issue, there'll be another one along shortly!



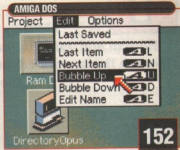
Not only do we give you ultimate programs on our cover disks, but we also show you how to use them. Is there no end to our generosity? Apparently not. Sit tight and fasten your headphones as DJ Horgan and the UnDead Kennedy guide you through the sample editor, synth sound editor and the unique eight channel mode - gosh!



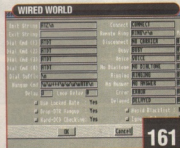
We'll locky here: one of those strange marketing-type things, yep, a reader survey. Yeah, I know at first glance it appears boring, but fill it in and discover a whole new world. Okay okay, I jest, but if you fill it in and send it back pronto you could win one of fifty joysticks.



Boing, bing, tra la de la, bop, fuzz. Yes, more strange and wonderful sounds can once again be heard as Tony 'I'll have it for you next week Lisa, honest' Horgan shows us what real music is all about. This month, Tony looks at samplers that can be used in conjunction with OctaMED.



Are you fed up taking hours to do something when you know that with a little more technology it would only take minutes? Do you want to reduce the amount time you spend doing things? If so, take the plunge and bag some hints from man John Kennedy as he unveils the secrets of AmigaDOS - can it get more exciting we ask?



In response to your requests CU AMIGA brings you an all new, improved and brighter Comms page. This month we've doubted our efforts for Comms users. Our very own net racer John Kennedy checks out some echos on FidoNet, whilst Graham Mason takes NComm 3 for a spin.



In space no one can hear you shout scream. Unless of course you program in Blitz Basic, in which case you can do what you want with the alien, or even aliens (how about aliens?). This month, Daniel O'Connor explains how to control more than two aliens on screen at once.

Regulars

166 QUESTIONS AND ANSWERS

Got a problem? Then our two wonderkids John and Andy are here to answer your techie problems in a beautifully prosaic way. If you can't understand a byte from a bit then you need John and Andy!

174 BACKCHAT

Have you seen this month's letters - what a carry on! Yes, if you thought Carry-On films were only suitable for channel four, wait 'til you read page 174! Look, it was all Alan's idea, so blame him!

178 POINTS OF VIEW

This month we let Steve Keen get a word in, not that he needs a chance. Steve looks at the new consoles supposedly coming out and contemplates what we can expect from the CD32 in future.

OCTAMED 4 TUTORIAL



Last month we gave away the amazing **OctaMED 4**. This month we continue the step-by-step comprehensive tutorial to this massively powerful music program. **CU AMIGA's** resident sound experts Tony Horgan and John Kennedy are on hand to guide you through the sample editor, the synth sound editor and the unique eight channel mode.

THE SAMPLE EDITOR

One of the best things about **OctaMED 4** is the sampler and sample editor section. If you have a sampler that connects to the parallel port of your Amiga, you can use this with **OctaMED 4** to grab any sound when it suits you.

As the sampler section is built into **OctaMED 4**, there's no need to quit out and load up a separate piece of sampling software. To enter the sampler section all you have to do is click on the SMPED button which is near the top right corner of the screen.

SAMPLE RATES

Before you start sampling, you need to know about sample rates. When a sound is recorded, the computer takes thousands of snapshots of the incoming sound wave. When the sound is played back, these snapshots are strung together to form one flowing sound wave. The rate at which these snapshots are taken is known as the sample rate. A higher sample rate will give a more accurate reproduction of the sound. Think of it as a digitised picture – a low sample rate is akin to a low-resolution digitised picture. A high sample rate is like a high resolution picture. If the sample rate is too low, the high frequencies in the sound will become distorted, and there's likely to be a ringing overtone to the whole sound. The advantage of a low sample rate, however, is that it will use less memory.

Instead of using kilohertz to define sample rates, **OctaMED 4** uses a measurement called a period. The period value is lower for higher sample rates, and higher for low sample rates. When **OctaMED 4** first loads up, its default period setting is 428. This is no good unless you desperately want really scratchy samples, so you'll need to change it. What you change it to depends on what you're sampling.

SAMPLING A SOUND

You'll need to be connected to a sampler cartridge to be able to record your own samples. Most varieties are compatible. Press F2 to change the selected octaves to 2 and 3. Now find the Pitch and Destination boxes on the far right of the sample editor window. Move the mouse pointer so that it's over the upper of the two boxes that currently read C-2 (see above).

Hold down the left mouse button, and press Q on the keyboard. This should change the value 428 in the adjacent box to 214. If nothing happens, press F2 to make sure that you have the

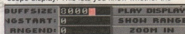


correct octaves selected, and try again. If you're going to sample something that contains high frequencies, such as a drum loop with cymbals, or a vocal that includes "S" or "T" sounds, change the rate to 170 or less by pressing the E key instead of Q when you click in the Pitch box. Otherwise, you'll find the sample is a bit scratchy.

Click on the INSTR button, then click in the long box that appears at the top of the screen. Type in whatever you want to call the sound that you're about to sample, and press return.

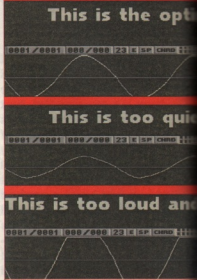
Next, you need to set the size of the sample you're about to record. This is measured in bytes. For now, set the sample size to 80,000 bytes (80K). This will give about five seconds of sampling time at the sample rate you just set (214). To set the size of the sample, click in the box marked BUFFSIZE, found on the far left of the sample editor panel. Type in 80000 and press return (bearing in mind that there's already a zero in the box, so you only need to enter 4 zeros. You now have a blank space to sample into).

Now you need to get a good sound level coming into the sampler. Click the MONITOR button (from the sampler panel, and the blank slot in the middle of the screen should turn to an oscilloscope display. This way you know whether the



incoming sound is too loud or quiet. Connect your sampler to your sound source, and start the source playing. If you don't see a sound wave moving around in the middle box, check your connections and try turning up the volume at your source. Once you've got a signal coming through, watch the wave and see whether it's flattening out at the top and bottom. If so, reduce the volume so that the loudest part of the sound just touches the top and bottom of the box very briefly. If the wave doesn't move far from the central line, then turn the volume up. Look at the examples on the page if all that doesn't make any sense at all.

When the levels are correct, click the MONITOR button to exit monitor mode, and then click the RECORD button. The oscilloscope will come



up again, allowing you to cue up your sound. Just before the bit you want to sample, click the left mouse button a second time to start recording. The screen will go black while it concentrates on recording, but will automatically jump back to the sampler screen once it's filled up its allotted 80K of sample space.

EDITING SAMPLES

You now have a sample – hurrah! Press any of the normal keys to play back your sample at different pitches. You can now trim the unwanted parts from the sample.

Use the right mouse button to highlight an area at the start of the sample. If you want to extend the highlighted area (referred to as the range), hold down the shift key when you use the right button.

Use the PLAY RANGE button to hear the selected area. Click on SHOW RANGE to magnify this area to the full width of the screen. Locate the parts you don't want, highlight them, listen to them with the PLAY RANGE button, and then click on CUT when you've highlighted unwanted parts. Use the ZOOM OUT and SHOW ALL buttons to view more of the sample.



SAVING A SAMPLE

To save our sample to disk, click on the FILES button. Wait for the drive light to go out, and insert a formatted disk in the internal drive. Click on DFO; in the devices list on the right of the screen, click in the FILE box and type in a name

volume level.

may be noisy.

sound distorted.

Echoes can be put on the sample with the ECHO button. This uses the three parameters to define the gaps between each echo, the decay rates, and the number of echoes. A random white noise creator is also included, activated by the NOISE button just left of the echo button. The value to the right of the button is the level of noise, which can be changed by clicking in the box and entering a new value. You can use this to mix in some hissy noise over an existing sample, or just create some pure noise in a blank sample. You

NOISE 20

might want to use the BOOST option to emphasise the noise. This is particularly handy for generating your own drum and cymbal sounds.

Freehand is an useful option that lets you edit the sample wave by actually drawing it on-screen with the mouse. As soon as you click the FREEHAND button, the sample window zooms in close on the sound wave. You can now draw in the sample window by holding down the left mouse button. Try this if you need to remove tiny clicks or pops from a sample.

Just to the right of the freehand button you'll find the CHG VOL button. This stands for Change Volume - can you guess what it does? The first parameter is the volume for the start of the sample (as a percentage of the original volume), and the second is the end volume. This means you can create volume fades by using two different values. The default values are both 200%, which would of

for the sample and press return. Click the SAVE INSTR button to save the sample.

SAMPLER EFFECTS

There are a number of effects you can use from the sample editor to improve the sound quality and spice up your samples. All of the effects buttons work on the highlighted range of the sample, leaving the unselected parts as they were.

Sometimes your sample doesn't sound as bright as the original - this is usually due to a loss of treble in the sample. To counter this, highlight the whole sample (or the section you want to affect), and click the BOOST button. You'll hear the difference when

BOOST 16 1

you play the sample again. The two numbers to the right of the button are the settings for the boost and filter controls. Experiment with these for some wild effects. Filtering the sample can cut out a lot of unwanted hiss, and can be especially useful for sampled basses. Use the FILT button to filter the sound. REV turns the sample around, so that it plays in reverse. CUT, copy, paste, delete and clear work as they would in any other package. Anything

FILT BOOST 16 1

that's cut or copied is stored in a temporary buffer, the contents of which are used whenever you use the paste or mix functions.

course make the sample twice its original volume. Remember that you can only turn the volume up so far before the sample becomes distorted.

So-CBUFF copies the current sample into the copy buffer. CBUFF-S pastes the contents of the copy buffer into the sample window. DEL CS deletes the copy buffer (can save a little RAM), and R-SY copies the sample into the synth editor. The CHANGE RATE button will re-sample your sound so that it plays back at a different pitch, using the PITCH and DEST(INATION) values. OCT up and OCT down will transpose the sample data a whole octave up or down, either doubling or halving the size of the sample in the process.

EIGHT CHANNEL MODE

One of OctaMED's most powerful features is its 8 channel mode. Normally the Amiga can play up to 4 samples simultaneously, but thanks to some very clever programming, OctaMED can play eight. It manages this by mixing eight samples together to make four, which it then pumps out through the normal sound channels. This does come at a cost though - you'll have to make do with reduced sound quality and more approximate tempo control.

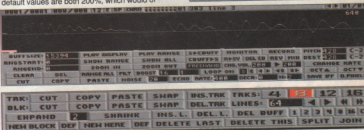
To enter eight channel mode click one of the buttons marked 4-8 on the main PLAY panel. If you only want to use five channels, click the five button. There's no point in getting the program to mix eight channels if you're not using them all - on slower Amigas there's a very noticeable loss of speed which is minimised by selecting fewer channels.



You'll be asked if you want to halve the samples as soon as you enter anything over four channel mode. Press Y for yes. This will halve the volume of all the samples currently have loaded, and will automatically do the same to any samples that are loaded in from now on. If you don't halve the samples, when the channels are mixed, the combined samples will be too loud, and will sound distorted.

In order to use the full eight channels, you'll need to set the number of tracks in each block to eight. Do this by clicking on BLOCK, then on the eight button. The display changes to show all eight tracks at once, which can be a bit hard to see on a TV, but unfortunately there's no way around this. The speed control is now limited to the secondary tempo.

The tempo slider on the left now has no effect, so you need to use the one on the right. A lower value equates to a faster tempo. You'll notice that



the secondary tempo doesn't allow for as fine tweaking as the primary tempo.

If your Amiga has an accelerated processor (68020 or higher) you can use the HQ button to squeeze some extra sound quality (most notably treble response) from the 8 channel mode.

SYNTH SOUNDS

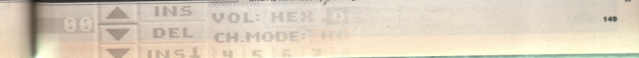
One of the many features which makes OctaMED a rather special sound tracker is its ability to create its own sounds from scratch. Rather than relying on samples (either your own, or those of someone else) it is possible to generate noises completely synthetically. It's like owning a very expensive synthesiser, without the expense!

STAGE ONE

Load up your copy of OctaMED, and select the INSTR edit screen. Enter a good name, and then select the sound type. Ignore any 'Error: object not found' messages when you enter the name. OctaMED can use three types of sound: samples, synth sounds and hybrid sounds, which are a combination of the first two. Click the SYNTH button next to the word TYPE on the instrument panel. Now you need to go to the waveform editing screen, so select SYNTH from the buttons on the far right.

STAGE TWO

There are two oscilloscope displays for you to draw your waves into. The one on the right is for experiments, the one on the left is the main



THE AMIGADOS PROBLEM SOLVER

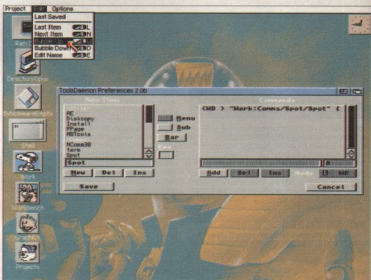
John Kennedy, the man with the answers, dons his Shell Suit to take another look at making the most of the Amiga's advanced operating system.

Do you want to speed up operations and customise your workbench? Yes, well read on to find out about some handy tricks that can do just that.

The Amiga's Shell is an incredibly clever thing — you can copy files, delete them, edit them: in fact you can do anything you can do from the Workbench, and a whole lot more besides. I use the Shell so much that I have its icon permanently 'left out' on the Workbench, but some folk even get their operating system to open one for them every time they boot, by altering the Startup Sequence.

Unfortunately, Commodore decided not to include a manual on using AmigaDOS with the A1200, which means a lot of users know virtually nothing about how to use it. By trial, error and a bit of looking around you should be able to work out a few basic Shell commands. Once you have the shell open, you should at least have a fair idea that DIR will produce a list of the files in the current directory — but that can be the limit.

The table below contains a handy run down of some of the more useful Shell commands for you to keep as a reference.



Configuring ToolDaemon is easy, you simply drag the icons of your favourite programs and drop them in the Spot window. The menu item will be automatically created for you.

Note: references to the CLI mean more or less the same thing as the Shell. Earlier versions of

SIMPLE AMIGADOS COMMANDS

AmigaDOS Command	Function	Example
newshell	Open a new shell window	newshell
ends	Close the existing window	ends
run	Start a program in the background	run newshell
dir	Obtain a list of the files in the current directory, or in the named directory.	dir d0:
cd	Move to another directory or move back up one sub-directory, or display the name of the current one.	cd d0: cd /
ed	Edit an existing file or create a new one. Press ESC and Q to quit without saving, and ESC and X to save and quit.	ed start-up sequence
delete	Erase a file	delete namc.plop bak
let	As DIR but with more information and options	let d0:
copy	Duplicate a file	copy d0:plop to d1:



The easiest way start ToolDaemon is to put a small program in the WBStartup drawer. Now every time your Amiga boots, the extra menu items will be present.

Workbench only had a CLI, which lacked basic editing facilities. For example, you couldn't press arrow-up to get the last thing you had typed.

Run is useful if you need to do several things at once. If you open a Shell window and enter:

```
run copy d0:plop to d1: QUIET
```

You can carry on with other commands whilst this copy process is done in the background. This is what the Amiga's 'multitasking' operating system is all about.

Sometimes you can't close a window if a task is still being processed. If this is the case, use the following listing:


```
run >ill: <ill: My program here
```

This will 'redirect' any input and output which 'My_program_here' may generate to a non-existent device, and suppress any messages or replies. It is especially handy to use in the Startup-sequence to stop programs opening tedious little windows.

WORKBENCH UTILITY PROGRAMS

One of the Amiga Workbench's better features is the ease at which extra programs can be integrated into it, to make life easier.

TOOLSDEAMON

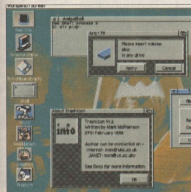
One of the many such programs I find almost invaluable is called *ToolsDaemon*, written by the incredibly-busy Nico Francois. *ToolsDaemon* offers an easy way to add your own menus to the Workbench, and each item is really one of your favourite programs. Instead of having to wade through dozens of drawers and directories trying to find *Deluxe Paint*, you can create a menu called 'Graphics' and include *DPaint* as an entry. When you select the *DPaint* menu option, the program will automatically load - handy or what?

ToolsDaemon is best used with a hard drive system, although if you give your floppy disks sensible names and stick to them, you might be able to use it with a floppy-only system. It's available from any good Public Domain library, so do your self a favour and get a copy.

TRASHICON

I rarely, if ever, use the Trash icon that comes as part of the Workbench. In fact, when formatting disks I always used the *NOICONS* option to make sure one is created. The main reason I don't use the Trash icon is that it can't be left out on the Workbench - it can only stay within the disk window. To get around this, Mark McPherson has written a program called *Trashicon* which can't be left out. In fact, it's a program which has an icon instead of a window. Whenever something is dropped into it, it gets deleted. It's much closer to the Apple Mac's Trashcan, and as a result a lot easier to use. Look out for it.

Incidentally, the snazzy looking requesters are created by a program called *ARQ*. It patches the system requesters to include little animated pictures and when used with *MagicWB* it looks really good. **END**



Trashicon is a program which creates a little bin that can be left out on the Workbench. Ask your favourite Public Domain for it, and get *Trashicon v2* as well (look at the top right of the screen). The *ARQ* requesters also add a touch of class to this MagicWB-enhanced Workbench, with the scanned background in sixteen pastel shades rounding off the ensemble beautifully.

WILDCARDS

Wildcards are an incredibly useful way of saving your fingers from wearing out. These can be used wherever a normal filename would occur, but can speed up a lot of operations.

There are two symbols that AmigaDOS uses: the '*' hash symbol (known as the 'pound' symbol by Americans) and the '?' question mark. If you are used to the PC and MS-DOS then you'll have some re-learning to do, as the '*' star isn't used by default.

When used in a filename, a '?' means 'any character' so the list of following filenames are all equivalent:

```
testfile1.dat
testfile?.dat
test771.dat
testfile1.da?
777777777.???
```

The 'hash' mark is used to mean 'any number of (or no) characters', so the following filenames are all equal:

```
aafile.xxx
#file.xxx
#file.#x
#p#aafile.#x
```

Now the combination of the wildcard symbols is what makes them most useful. The following files are all equal. Remember that AmigaDOS is very flexible with filenames, and certainly doesn't limit them to a group of eight characters, a full stop and three more characters.

```
my_picture.iff
my_picture.??
my_??_iff
my_??
??
```

Now for some practical examples. Say you had a list of images which you needed to copy from one disk to another. All the pictures had different names, but you had the foresight to include 'iff' somewhere in their names.

For example, they might be like: John.iff, BinkyTheCatIff, IFF_of_Sam.

You can copy all these files with one command: copy `d0:iff??:? to d1:`. The wildcards will get anything which has 'iff' somewhere in it. Note that AmigaDOS is not case specific. If the files are all stored in a directory called 'pictures' you would use a CLI command like this:

```
copy
d0:pictures/iff??:? to
d1:
```

If you wanted to re-create the directory, include the name of the new directory, like this:

```
copy d0:pictures/iff??:? to d1:pic-
tures
```

This will create a new directory, and copy only

the files with 'iff' in their names into it. If you don't want to see a list of filenames, but *QUIET* at the end of the command, like this:

```
copy d0:pictures/iff??:? to d1:pic-
tures QUIET
```

With Workbench 2 and up, a new and useful little symbol was added - the '~' or tilde. (It's obtained by shifting the key beneath the ESC key). The tilde means 'not', so you can obtain a listing of all files that don't have 'iff' in their names with a command like this:

```
list ~iff??:?
```

The brackets are optional, but they are there to try and make it clearer to see what is going on. Things can start to get tricky, especially when you use the '?' symbol, which means 'or'. For example, to list all files which have 'iff' or 'gif' in their names, use the following:

```
list (iff??:?) (gif??:?)
```

If you want to miss out any files ending with 'info' (in other words, the icons), use this:

```
list (gif??:?) (~(info))
```

You can see that although wildcards are powerful, they can quickly get well out of hand. Sometimes you spend more time thinking of the combination of #'s and '?'s and '!'s to use than you would have copying each file in turn. That's computing for you!

Deleting old files is an essential chore that you need to do before you fill your entire hard or floppy disk with rubbish. Wildcards can speed things up:

```
delete *.bak
```

will remove any old files. It's worth testing the command by swapping 'delete' with a 'list' before you accidentally nuke something important. You especially don't want to enter:

```
delete *
```

Or you might loose everything...

If you want to remove a directory and the contents, use a command like this:

```
delete d0:pictures/??
```

Now this will delete the files in the pictures directory, but it won't delete the directory itself. To do that include the ALL keyword, like this:

```
delete d0:pictures/ ALL
```

You might get an error message 'can't delete such-and-such in use'. This could be because an ASSIGN has been made to the file, so check your startup-sequence for and references.

NEXT MONTH

John continues on his voyage of AmigaDOS discovery, bridging great, yowing chasms of misunderstanding and, crossing the frontiers of knowledge in his quest to help you use your Amiga for bigger and better things.



This is Janika.

She's intelligent.

She cares about the environment.

She's got a good job.

She's ambitious.

And she's going to kick your teeth in.

We're feeling pretty hard at the moment because the June issue of *The One* is going to be a veritable bloodbath. Janika will be performing amateur dentistry with her mates in our fantastic four-page review of *ELFMANIA*. We'll be bruising our shins and elbowing each other in the face as we take a look at *JAMES POND 3* and *SIERRA SOCCER*. And we'll no doubt be doing lots of other crazy things, because we're like that sometimes.

Even our coverdisks are the toughest in the business. We'll have a massive *ARMOUR-GEDDON II* demo, two complete levels from *ICE*'s forthcoming *GULP!* plus 15 levels of platform mayhem with *TOUCH 'N' GO* and a completely brilliant version of that old classic *DIG DUG*. There'll probably be some other stuff as well, but we're not going to give you any more info because it's all top secret and if you found out we'd have to kill you.

Anyway, we're bored with talking to you now. We're off round the Krays' house for a quiet game of bridge.

THE ONE
AMIGA

JUNE ISSUE
ON SALE
MAY 28TH.
BUY IT. OR
WE'LL SEND
THE BOYS
ROUND.

CU

AMIGA

READERSHIP SURVEY

In order to give you the very best Amiga coverage we need to find out exactly what you think of both us and the home computer market in general. The information we get from you will be used to improve CU AMIGA (if it needs improving) and to advise Commodore and the software houses of your opinions and preferences. Send your completed surveys to: Readership Survey, CU AMIGA, EMAP Images, Priory Court, 30-32 Farringdon Lane, London EC1R 3AU. (Senders of the first 50 surveys we get will each receive a joystick.)

ABOUT YOU

1. Are you: Male ☐ Female ☐

2. How old are you?

Under 7 ☐ 8 ☐ 9 ☐
 10 ☐ 11 ☐ 12 ☐
 13 ☐ 14 ☐ 15 ☐
 16 ☐ 17-19 ☐ 20-23 ☐
 24-29 ☐ 30 or over ☐

3. Are You?

In junior school ☐
 In secondary school ☐
 In 6th Form/6th Form College ☐
 In higher education (University) ☐
 In full time employment ☐
 In part time employment ☐
 Unemployed ☐
 Other ☐

4. What do you do in your spare time? Please rate how keen you are on each of the following (10 = hyper keen, 1 = couldn't care less)

Play video games ☐ Playing sports ☐
 Watch TV ☐ Watch satellite ☐
 Watch videos ☐ Listen to music ☐
 Listen to the radio ☐
 Play arcade games ☐
 Go to the cinema ☐ Other ☐

5. On average how much time do you normally spend playing video games or using your Amiga for other purposes every week?

Less than 1 hour ☐ 1-2 hours ☐
 2-4 hours ☐ 4-6 hours ☐
 6-8 hours ☐ 8-10 hours ☐
 10-20 hours ☐
 More than 20 hours ☐

6. How do you play your games?

On my own ☐ With a friend ☐
 With a group ☐

7. On average, how much money do you earn/get given each month?

£0-9 ☐ £10-£49 ☐
 £50-£99 ☐ £100-£499 ☐
 £500-£832 ☐ £833-£1249 ☐
 £1250-£1666 ☐ £1667-£2499 ☐
 Over £2500 ☐

8. Which of the following do you regularly buy?

CDs ☐ Tapes ☐
 Videos ☐ Clothes ☐
 Shoes/Trainers ☐ Sweets ☐
 Crisps ☐ Drinks ☐
 Takeaway food ☐ Books ☐
 Comics ☐ Other ☐

9. Do you have a bank account?

Yes ☐ No ☐

YOU AND YOUR AMIGA

10. Which of the following describes your technical competence on the Amiga?

Expert ☐ Competent ☐
 Beginning to get the hang of most things ☐
 Complete beginner ☐

11. Which of the following Amiga(s) do you own?

CD32 ☐ A500 ☐
 A500 Plus ☐ A600 ☐
 A1000 ☐ A1200 ☐
 A1500 ☐ A2000 ☐
 A3000 ☐ A4000/030 ☐
 A4000/040A4000T ☐

12. Do you plan to upgrade your Amiga in the next 6 months, if so to which model?

13. Which version of Workbench are you running? (If you have more than one list the highest)

1.2 ☐ 1.3 ☐
 2.04/2.05 ☐ 2.1 ☐
 3 ☐ 3.1 ☐

14. How much memory (RAM) does your Amiga have?

5Mb ☐ 1Mb ☐
 2Mb ☐ 4Mb ☐
 8Mb or above ☐

15. What size hard drive do you own (if any)?

20Mb ☐ 40Mb ☐
 60Mb ☐ 80Mb ☐
 120Mb or above ☐

16. Which of the following peripherals do you own?

Disk drive ☐ Monitor ☐
 Video digitiser ☐ Printer ☐
 Modem ☐ Genlock ☐
 Sound sampler ☐ Accelerator ☐
 CD-ROM drive ☐ Emulator ☐
 Graphics enhancer (24-bit) ☐
 FMV capability (if available) ☐
 Networking interface ☐
 PCMCIA Hard drive ☐

17. Which following types of software do you use. If you purchased a program, rather than getting it with your Amiga etc, please tick the 'purchased' column as well.

Use ☐ Purchased ☐

Word processor ☐ ☐
 Spreadsheet ☐ ☐
 Database ☐ ☐
 Painting program ☐ ☐
 Drawing program ☐ ☐
 DTP ☐ ☐
 Comms program ☐ ☐
 Sound sampler ☐ ☐
 Midi sequencer ☐ ☐
 Program language ☐ ☐
 Multimedia system ☐ ☐
 Image processor ☐ ☐
 Rendering software ☐ ☐
 Graphics utility ☐ ☐
 Utility ☐ ☐

18. Is your Amiga linked to a HiFi?

Yes ☐ No ☐

19. What are your main interests?

Graphics/video ☐ Music ☐
 Programming ☐ Business ☐
 Public Domain ☐ DTP ☐
 Comms ☐ Games ☐
 Other ☐

20. Do you find the technical reviews:

About right ☐ Too technical ☐
 Not technical enough ☐

21. What do you think of the overall content of CU AMIGA?

About right ☐ ☐
 Too little game reviews/previews ☐
 Too much game reviews/previews ☐
 Not enough tech/serious reviews ☐
 Too much tech/serious reviews ☐

22. How much do you plan to spend on hardware in the next 12 months?

Under £50 ☐ £50-£100 ☐
 £100-£200 ☐ £200-£500 ☐
 £500-£1000 ☐ Over £1000 ☐

23. Do you have, or intend to buy in the next six months, any of the following items?

	Own <input type="checkbox"/>	Intend <input type="checkbox"/>
Disk Drive	<input type="checkbox"/>	<input type="checkbox"/>
Monitor	<input type="checkbox"/>	<input type="checkbox"/>
Printer	<input type="checkbox"/>	<input type="checkbox"/>
Modem	<input type="checkbox"/>	<input type="checkbox"/>
RAM upgrade	<input type="checkbox"/>	<input type="checkbox"/>
Sound sampler	<input type="checkbox"/>	<input type="checkbox"/>
Video digitiser	<input type="checkbox"/>	<input type="checkbox"/>
Genlock	<input type="checkbox"/>	<input type="checkbox"/>
Accelerator	<input type="checkbox"/>	<input type="checkbox"/>
CD-ROM drive	<input type="checkbox"/>	<input type="checkbox"/>

- » Emulator ☐ ☐ ☐
 Graphics enhancer ☐ ☐ ☐
 FMV capability ☐ ☐ ☐
 Networking interface ☐ ☐ ☐
 Hard drive ☐ ☐ ☐

24. Apart from games, what else do you use your Amiga for?

- Education ☐ DTP ☐
 Business presentation/multimedia ☐ ☐
 Music (midi and sound sampling) ☐ ☐
 Graphics & animation ☐ ☐
 General word processing ☐ ☐
 Programming ☐ ☐
 Personal finance ☐ ☐
 Spreadsheets/accounts ☐ ☐

25. What type of Amiga Games are you interested in?

- Arcade style (shoot 'em ups, etc) ☐ ☐
 Board and puzzle (Chess/Tetris) ☐ ☐
 Flight sims ☐ ☐
 Graphic adventures (Tentacle etc) ☐ ☐
 Platform (Flashback, Zool, etc) ☐ ☐
 Role playing/strategy games (Ultima, AD & D, etc) ☐ ☐
 Sports simulations ☐ ☐
 (Sensible Soccer, Formula 1, etc) ☐ ☐
 Games with FMV included ☐ ☐

26. What do you think would make the best CU coverdisk offer?

- No disks and reduce price to £2.95 ☐ ☐
 Two disks at 3.95 ☐ ☐
 Three disks at £4.50 ☐ ☐
 1 CD32 disk at £4.99 ☐ ☐

ABOUT YOUR GAMES

27. Which of the following machines do you (1) own or do you (2) have access to (perhaps via a friend)?

- | | 1. Own | 2. Access |
|--------------------|--------------------------|--------------------------|
| Sega Mega CD | <input type="checkbox"/> | <input type="checkbox"/> |
| Sega Mega Drive | <input type="checkbox"/> | <input type="checkbox"/> |
| Sega Game Gear | <input type="checkbox"/> | <input type="checkbox"/> |
| Sega Master System | <input type="checkbox"/> | <input type="checkbox"/> |
| Nintendo SuperNES | <input type="checkbox"/> | <input type="checkbox"/> |
| Nintendo GameBoy | <input type="checkbox"/> | <input type="checkbox"/> |
| Nintendo NES | <input type="checkbox"/> | <input type="checkbox"/> |
| Atari Jaguar | <input type="checkbox"/> | <input type="checkbox"/> |
| Atari Lynx | <input type="checkbox"/> | <input type="checkbox"/> |
| Atari ST/Falcon | <input type="checkbox"/> | <input type="checkbox"/> |
| Amiga A500 | <input type="checkbox"/> | <input type="checkbox"/> |
| Commodore CD32 | <input type="checkbox"/> | <input type="checkbox"/> |
| Amiga A1200 | <input type="checkbox"/> | <input type="checkbox"/> |
| Apple Macintosh | <input type="checkbox"/> | <input type="checkbox"/> |
| Acorn Archimedes | <input type="checkbox"/> | <input type="checkbox"/> |
| PC | <input type="checkbox"/> | <input type="checkbox"/> |
| PC CD-ROM | <input type="checkbox"/> | <input type="checkbox"/> |
| PC Engine | <input type="checkbox"/> | <input type="checkbox"/> |
| Neo Geo | <input type="checkbox"/> | <input type="checkbox"/> |
| Philips CD-I | <input type="checkbox"/> | <input type="checkbox"/> |
| 3DO | <input type="checkbox"/> | <input type="checkbox"/> |

28. Which machine do you want to buy next?

- Amiga 1200 ☐ ☐
 Amiga 4,000 ☐ ☐
 CD32 ☐ ☐
 FMV ☐ ☐
 Sega Mega CD ☐ ☐
 Sega Mega Drive ☐ ☐
 Sega Game Gear ☐ ☐
 Sega Master System ☐ ☐
 Nintendo SuperNES ☐ ☐
 Nintendo GameBoy ☐ ☐
 Nintendo NES ☐ ☐

- Atari Jaguar ☐ ☐
 Atari Lynx ☐ ☐
 Atari ST/Falcon ☐ ☐
 Amiga A500 ☐ ☐
 Commodore CD32 ☐ ☐
 Amiga A1200 ☐ ☐
 Apple Macintosh ☐ ☐
 Acorn Archimedes ☐ ☐
 PC ☐ ☐
 PC CD-ROM ☐ ☐
 PC Engine ☐ ☐
 Neo Geo ☐ ☐
 Philips CD-I ☐ ☐
 3DO ☐ ☐
 Sega MultiMega ☐ ☐
 Sega Mars/Mega-32 ☐ ☐
 Sega Saturn ☐ ☐
 Nintendo Project Reality ☐ ☐
 Sony PS ☐ ☐

29. How many games do you own?

- None ☐ One ☐
 2-5 ☐ 6-10 ☐
 11-25 ☐ 26-50 ☐
 More than 50 ☐ ☐

30. On average how much software (games and/or utility) do you buy?

- Never buy software ☐ ☐
 A couple every year ☐ ☐
 One every three months ☐ ☐
 One every couple of months ☐ ☐
 One per month ☐ ☐
 Two per month ☐ ☐
 Three per month ☐ ☐
 Four per month ☐ ☐
 Five per month ☐ ☐
 More than five per month ☐ ☐

31. How much software (games and/or utilities) do you get or are given (as presents etc)?

- None ☐ ☐
 A couple every year ☐ ☐
 One every three months ☐ ☐
 One every couple of months ☐ ☐
 One per month ☐ ☐
 Two per month ☐ ☐
 Over two per month ☐ ☐

32. How many different games do you play in a month – either on your own, at a friend's or elsewhere?

- None ☐ 1-5 ☐
 6-10 ☐ 11-15 ☐
 15-20 ☐ Over 20 ☐

33. How long have you been playing computer and video games?

- A month or less ☐ 1-3 months ☐
 3-6 months ☐ 6-12 months ☐
 12-18 months ☐ 18 mths-2 years ☐
 2-3 years ☐ 3-4 years ☐
 4-6 years ☐ Over 6 years ☐

34. How much do you spend on software goods on average in a month?

- Nothing ☐ Under £10 ☐
 £10-£25 ☐ £25-£50 ☐
 £50-£75 ☐ £75-£100 ☐
 £100-£150 ☐ £150-£200 ☐
 Over £200 ☐ ☐

35. In order of preference, which of the following are the most important things that help you decide which software you would

like to buy? (1 = most important, 10 = least important)

- Computer magazine review ☐ ☐
 Computer magazine preview ☐ ☐
 Recommendation by a friend ☐ ☐
 Advert in a computer magazine ☐ ☐
 Editorial in other magazines ☐ ☐
 Saw it on TV ☐ ☐
 Saw an advert on TV ☐ ☐
 Saw a poster ☐ ☐
 Saw it at an exhibition ☐ ☐
 Shop demonstration ☐ ☐
 Rent to try out first ☐ ☐
 Other ☐ ☐

36. Where do you normally buy your software and hardware?

- Dixons ☐ Virgin ☐
 Woolworths ☐ Argos ☐
 Comet ☐ Boots ☐
 Toys R Us ☐ WHSmith ☐
 Microbyte Games ☐ Our Price ☐
 HMV ☐ Curry's ☐
 Rumbelows ☐ Future Zone ☐
 John Menzies ☐ Game ☐
 Blockbuster Video ☐ Ritz ☐
 Tandy ☐ Beatties ☐
 Specialist shop ☐ Mail Order ☐

ABOUT THE MAGAZINE

37. Where do you usually buy your computer magazines from?

- WHSmith ☐ John Menzies ☐
 Martins ☐ Fourbuys ☐
 Tesco ☐ Sainsburys ☐
 Asda ☐ Local newsagent ☐
 Subscription ☐ Somewhere else ☐

38. Who pays for the magazine?

- You ☐ A friend ☐
 Your parents/other relative ☐ ☐

39. How many other people apart from yourself will see your copy of CU AMIGA?

- Nobody else ☐ One ☐
 Two ☐ Three ☐
 Four ☐ Five ☐
 More than five ☐ ☐

40. How often do you (1) buy or (2) see (perhaps a friend's copy of) CU AMIGA?

- Every month ☐ 1: Buy 2: See ☐
 Every couple of months ☐ ☐
 Every three months ☐ ☐
 Less often ☐ ☐

41. How long have you been buying CU AMIGA?

- One month ☐ 1-3 months ☐
 3-6 months ☐ 6-12 months ☐
 12-18 months ☐ 18 mths-2 years ☐
 Over 2 years ☐ ☐

42. Would you ever buy a game without seeing a review first in a copy of CU AMIGA?

- Yes ☐ No ☐

43. How would you rate CU AMIGA as a computer mag? (10 = brilliant, 1 = rubbish)

- 1 ☐ 2 ☐
 3 ☐ 4 ☐
 5 ☐ 6 ☐

- 7 ☐ 8 ☐
 9 ☐ 10 ☐

44. What do you think of the different sections of CU AMIGA?

- | | Good | Average | Poor |
|----------------|--------------------------|--------------------------|--------------------------|
| Covers | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Cover gifts | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Coverdisks | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| News | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Game previews | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Game reviews | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Features | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Tech. reviews | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| PD Scene | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| PD Utilities | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Art Gallery | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Tutorials | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Sound Lab | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Q+A | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Backchat | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Points of View | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Competitions | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

45. What other magazine do you normally buy or see and how would you rate them out of 10 (where 10 = brilliant and 1 = rubbish)?

- | Magazine | Buy | Rating |
|---------------|--------------------------|--------------------------|
| The One Amiga | <input type="checkbox"/> | <input type="checkbox"/> |
| Amiga Action | <input type="checkbox"/> | <input type="checkbox"/> |
| Amiga Format | <input type="checkbox"/> | <input type="checkbox"/> |
| Amiga Shopper | <input type="checkbox"/> | <input type="checkbox"/> |
| Amiga Power | <input type="checkbox"/> | <input type="checkbox"/> |
| Amiga Pro | <input type="checkbox"/> | <input type="checkbox"/> |
| Amiga Mart | <input type="checkbox"/> | <input type="checkbox"/> |
| Amiga Comp. | <input type="checkbox"/> | <input type="checkbox"/> |
| Amiga User | <input type="checkbox"/> | <input type="checkbox"/> |

46. How did you first find out about CU AMIGA?

- From a friend ☐ In a newsagent ☐
 From a magazine advertisement ☐ ☐
 At an exhibition ☐ From a TV show ☐
 Leaflet in a hard/software purchase ☐ ☐
 From a radio ad ☐ Other ☐

47. How interested are you in seeing the following promotions in CU AMIGA? (1=not interested; 5=extremely interested):

- Tips books ☐ ☐
 Supplements (eg. buyer's / beginner's guides / top 100 games etc.) ☐ ☐
 Money-off vouchers ☐ ☐
 Exclusive CU AMIGA Offers ☐ ☐
 Gadgets – ie mousemats etc. ☐ ☐

48. Would you like to subscribe to CU AMIGA?

- Yes ☐ No ☐

If you have any suggestions that you feel may be of interest to us please feel free to include them on a separate piece of paper.

Name:

Address:

.....

.....

I would be interested in taking part in further questionnaires regarding CU AMIGA.

This does not mean that my details will be given out to third parties for mailing purposes.

VIDEO GENLOCK FOR ALL AMIGAS

This extremely high quality Amiga Genlock, from GVP, has an intuition-based software control panel with full Affex and command line interfaces. Easy to use, the G-LOCK features many sophisticated attributes among which are:

- Two Composite Video Inputs or S-Video (Y/C) Input
- Simultaneous Composite & S-Video and RGB Output
- Video Processor - Real Time Software Control of Video Attributes (Sharpness, Gain, Brightness etc.)
- Affex Compatible
- Works with Flicker Fixers
- Multiple Keyer Modes
- Full Audio Support

G-LOCK £349
£299

NEW 40MHz & 50MHz ACCELERATORS FOR AMIGA 1200



The new GVP AT230-A, available in 40MHz 68000 and 50MHz 68010 configurations, are the most advanced accelerators yet for the Amiga 1200. They can make an Amiga 1200 run at 40MHz or 50MHz, 100% faster than the standard 33MHz and feature unique speed compatibility.

MMU ON FPU
 The AT230-A includes a built-in Memory Management Module (MMU), for the AT230-A, which enables it to control 32MB of memory. This means that the AT230-A can be used to run any Amiga 1200 software, including those that require a large amount of memory (such as the Amiga 1200's own software).

AT230-1 PROCESSOR ACCELERATOR

40MHz 68030 - NO MMU				50MHz 68030 with MMU			
NO FPU	NO FPU	NO FPU	NO FPU	NO FPU	NO FPU	NO FPU	NO FPU
1200 RAM	1200 RAM	1200 RAM	1200 RAM	1200 RAM	1200 RAM	1200 RAM	1200 RAM
£249	£449	£649	£549	£379	£579	£779	£679

• 40MHz 68000 and 50MHz 68010 Accelerator
 • Unique Feature Connector for Module Expansion
 • Built-in Memory Management Unit
 • On-chip Version
 • Optional 60ns 320M RAM Upgrade
 • Battery Backed Clock
 • Optional 40ns or 50ns 68682 Maths Co-Processor
 • Sophisticated Memory Management and Cache Control Software
 • Kickstart Rerouting Technology

RAM UPGRADES
 The AT230-A is a unique product in that it can be used to upgrade the RAM of an Amiga 1200. This means that the AT230-A can be used to run any Amiga 1200 software, including those that require a large amount of memory (such as the Amiga 1200's own software).

SCSI-II EXPANSION MODULE
 • AT230 - Fastest SCSI Controller Yet
 • 68010 SCSI Design
 • Fastest RAM Controller
 • 68010 SCSI Design
 • 68010 SCSI Design

SCSI-II EXPANSION MODULE

1200 RAM	1200 RAM	1200 RAM	1200 RAM
£79	£79	£79	£79

24-BIT GRAPHICS CARD FOR A1800/A2000/A3000/A4000



The EGS Spectrum is the answer to all your 24-bit graphics needs. It is a high performance, high resolution, 24-bit board that will take any Amiga 1000, 2000, 3000 or 4000 beyond AGNI. But the hardware is only half of the picture. Without quality software, your investment will be wasted. Not only does GVP's new board support EGS Spectrum, but also, using a Workbench driver, ready to existing Amiga Workbench compatible applications will also work on and support the EGS Spectrum system.

- One of Two On-board Memory
- 68010, 68012, 68013, 68014, 68015, 68016, 68017, 68018, 68019, 68020, 68021, 68022, 68023, 68024, 68025, 68026, 68027, 68028, 68029, 68030, 68031, 68032, 68033, 68034, 68035, 68036, 68037, 68038, 68039, 68040, 68041, 68042, 68043, 68044, 68045, 68046, 68047, 68048, 68049, 68050, 68051, 68052, 68053, 68054, 68055, 68056, 68057, 68058, 68059, 68060, 68061, 68062, 68063, 68064, 68065, 68066, 68067, 68068, 68069, 68070, 68071, 68072, 68073, 68074, 68075, 68076, 68077, 68078, 68079, 68080, 68081, 68082, 68083, 68084, 68085, 68086, 68087, 68088, 68089, 68090, 68091, 68092, 68093, 68094, 68095, 68096, 68097, 68098, 68099, 68100, 68101, 68102, 68103, 68104, 68105, 68106, 68107, 68108, 68109, 68110, 68111, 68112, 68113, 68114, 68115, 68116, 68117, 68118, 68119, 68120, 68121, 68122, 68123, 68124, 68125, 68126, 68127, 68128, 68129, 68130, 68131, 68132, 68133, 68134, 68135, 68136, 68137, 68138, 68139, 68140, 68141, 68142, 68143, 68144, 68145, 68146, 68147, 68148, 68149, 68150, 68151, 68152, 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Premier Mail Order

Please send cheque/PO's (made out to Premier Mail Order), or advise Visa/Mastercard number and expiry date to:

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MOST TITLES ARE DESPATCHED SAME DAY, BUT CAN TAKE UP TO 28 DAYS Some Titles may not be released at the time of going to Press

E & O

[illegible][illegible]

COMMS

There's never a dull moment in cyberspace - it's like receiving a sack of mail, a bundle of the latest PD and a magazine or two through your letterbox every morning. John Kennedy looks at what's what.

Early every morning, before the postman comes round, my computer uses its modem to dial a local number. After a few seconds the transfer is finished, and I have a new sack of mail to read through.

The mail ranges from everything from personal messages from people I've never met, to general comments about the Amiga's operating system.

It's all down to Comms, the hobby that's growing in popularity every day. To take part you need a computer, a modem, a standard telephone line and some software – and it's easier to get started than you might think.

sysop! Might be worth a try for novelty value alone...

Here are some more of the comparatively few Northern Ireland BBSs: The Village BBS Tel: 0232 602972

Starship Enterprise Tel: 0232 763014, Heart of Gold: Tel: 247-274919.

For those in the UK mainland you might like to try: AmigaBea 081 695 5328 (nice good all round board), Silica's BBS on 081-309 5258. Some other boards include: The Abyss 0753 529650, Amiga Pond 051-547 3245.

Thunderball Amiga 0635 872605.

Waltons Mountain 081-891 5730.

01 for Amiga 071-


3771358

Kickstart Amiga 095-4789 993.

Please note that CU AMIGA cannot be held responsible for any information or programs/data downloaded from these boards or their contents. This information is NOT a recommendation for any of these boards.

FIDO UPDATE

It's all happening in the AMIGA_MAGS echo on FidoNet at the moment. Every day a dozen new messages appear as the war continues... which magazine is best? Which magazine writers are talking out of the back of their good magazine coverdisk... which we're considering setting up an echo.

If you are part of FidoNet ask your sysop to get the AMIGA_MAGS echo. You'll soon see for yourself what's going down, so feel free to jump in with comments about your favourite magazine (CU AMIGA, of course). 

If you want your favourite board mentioned, or want a list of local places to call, or just want to make some comments, write or Email to Wired World.

Internet address: cuamigo@ix.compulink.co.uk

Internet address: johnk@infosys.demon.co.uk

Fido address: FidoNet 2:443/13.4

Fido also: AMIGA MAGS.

Best Wood World Co. Arroyo Priory Court 30/32

Ferrindon Lane, London EC1R 3AJ

REACH OUT AND TOUCH.

What is FidoNet? It's a huge network of amateur bulletin boards spread across the world. There are over 26,000 boards taking part and each board is used by many people. You can log onto a Fido board just like another BBS, but when you go to the messaging areas you'll see a heck of a lot of interesting stuff flying back and forward.

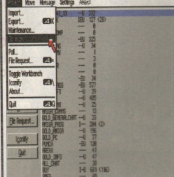
Fido boards link up at night, and share messages between one another. This means that as well as having local areas, most boards have national or even international sections.

Anyone with access to a Fido board can take part in these 'Echos', which are on-going conversations about everything under the sun. The Echos broadly categorise what the conversations are about (Astronomy, Amiga magazines, games consoles) and inside each Echo are different 'threads' on related topics.

If possible, instead of relying on reading and replying to messages whilst your modem is connected, you should try to get hold of an 'off-line reader' program, such as *Q-Blue* or *AnyBW*. These programs allow you to read and answer messages whilst not actually on-line – your messages are all bundled up and sent when you have finished. *Q-Blue* and *AnyBW* are freely available from most boards, under the names of *Q-BLUE10.LHA* and *ANYBW201.LHA*.

Alternatively, you should consider becoming a 'point' on a Fideboard. Ask your local board's sysop about it, and he'll tell you of the advantages and help to get you started. You must ask your sysop before becoming a Point so they can give you a point number.

Don't worry, becoming a point is free, and in return you get to have your own miniature bulletin board system. The best software for the job is Spot (written by PPMore author Nico Francois), and you'll also need TrapDoor to do the mailing. Both programs are shareware, and easy to get hold of.



Spot allows complete access to as many (or as few) echos as you like. Once you have configured your system you will have a private Email area, plus the local, national and international sections.

Screen Phone Dial

What's this, even more Comms information? Well, you asked for it and now you got it. So, your eyes are not deceiving you. Graham Mason gives you the low down on NComm 3.

✓ Title Bar

ANSI Pens

Screen Mode

Palette

Split Screen

✓ Style

Bell

Cursor Blink

Reset

WB Screen

Close WB Screen

Text Snapping

Force 80 x 24

Flashing Text

Custom Font

✓ Use WB Palette

Public Screen



January 1994 marked a milestone in Amiga modem users lives. The long-awaited update for NComm 2 finally hit the scene. NComm 2 has long been a product that modem users the world over have sworn by, a yardstick against which other terminal packages on the Amiga have been measured by. Could a new version ever manage to live up to this reputation? More to the point, would it be radically different enough to warrant upgrading to?

GET IT ON

Upon booting up NComm 3 one thing becomes immediately apparent: the author of NComm 2 has suffered so much at the hands of users who have taken advantage the program but never registered that he has disabled all the save functions from the program. Thus, while it's easy to configure the program on a session by session basis it gets to be so much of a chore that you will end up registering the package if you use it frequently.

Changes from version two to version three also become obvious: the bugs which caused the old version to crash have largely been ironed out while XPR protocol support has now been included. The XPR system is like a large library of file transfer protocols, (eg, zmodem is called XPRzmodem) and this file support means you can use many older types of file format. Major detail has also been paid to the way that the screen is laid out, for instance, the screen modes which are selectable to use with NComm is no longer limited to plain high res. Now, if your Amiga has an enhanced graphics card, NComm 3 will be more than pleased to use it. Gone also is the rather limited NComm character set, this time any type of Amiga character set can be displayed on the NComm 3 screen.

Closure attention has also been paid to Anxxr support. In fact it's now possible to talk to NComm 3 solely via Anxxr and not have to use the menu functions at all. Should you wish to have a script executed at, say 6pm, dial a friend, upload a file and then log off the facility, this has now been built in. Closure attention has also been paid to today's

UPDATE

Registered users of NComm 3 will now get version 3.04 which has further enhancements to the program as well as some added utility.

Registered version available from Torkil Lodberg
Piltveitveien 10, N-0384 Oslo, Norway.

high-speed modems and the rate at which they can transfer and receive data. With the need for high-speed modems to have serial port rates of 38400 bps and 57600 bps it's nice to see that these and greater speeds are also supported.

The way the screen handling routines have been optimised becomes apparent when you see the rate at which text just flies onto your screen. This is best illustrated by the fact that you don't notice that much difference in screen capabilities with trying this program running on an A4000 and if you compare it to a standard 1Mb A500.


My last point relates to file transfer. NComm 3 covers every aspect of the zmodem file protocol, and any future updates to the protocol, if there are any, will covered via a configuration menu system.

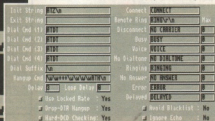
GOLDEN OLDIES

Unfortunately there are a few memory problems for users of older Amigas. The programmer (a Mr. Torkil Lodberg) recommends that NComm 3 isn't used on Amigas with only 512k RAM, and to be honest I can see why; with the program using around 200k and with all the other file options that are built in, you would soon run out of memory. This really isn't a limitation though, I wouldn't think that there are that many 512k users left, especially among the Comms fraternity.

All is not lost for older machines though, provided you have over 1Mb of Ram, it's nice to see that the retools library has been used extensively which allows a Workbench 1.3 Amiga to look like a Workbench 2.0 Amiga. In tests on my HST dual standard and on an A4000 the program performed effortlessly. I transferred a few programs to local BBSs with no problems and noticed that, if anything, the rate of the transfer performed about five percent better than NComm 2.

CONCLUSION

This program has been a long time in the making and well worth it. If you check out your local PD libraries and bulletin boards you will find it, but it's more than well worth while registering for the complete package. Since starting to use this version my old NComm 2 has been sent into retirement. We had a good and happy relationship together but sadly (sniff, I never thought I'd say this), it's time to pension it off in favour of its successor. 





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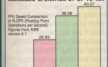
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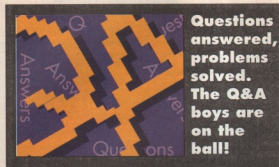
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JOHN KENNEDY
Some time ago John repaired a broken A4000 on an alien spaceship, and in return they built him a nice new office near his home. Lucky, eh?

ANDY LEANING
Andy has just moved into new premises too - a brand new house. Needless to say it has been designed to look like an Amiga!

MUMMY SAYS...

I am a novice Amiga user and I know absolutely nothing about how to use my brand new A1200. Please can you give me some advice and a few pointers.

1. My Amiga has no hard drive and no external floppy drive, and I find the constant disk swapping very irritating. I'm also worried that it might damage my machine. My mother says that the machine must be built for this, is she right?
2. I would like to learn a programming language to create demos and games, but I find most languages very hard to use - even Easy Amos.
3. I cannot understand AmigaDOS at all.
4. I have very little money, and I would like some good cheap software? Where could I get some?

A.N.Other, Forrest Hills, Camberley, Surrey.

Too shy to put your name, eh?
Welcome to the wonderful world

of Amiga. It won't be long before you're an Amiga expert just like me (*big head - ed*), so keep on in there. To answer your questions:

1. Always listen to your mother. Although swapping disks is a time consuming and tedious task, as long as you don't use excessive force the drive should continue to work for a long time to come. Remember, your Amiga has a year's warranty. I've been using an A500 for many years now, and the drive still works perfectly.
2. You can't understand Easy Amos? Really? Do you have the full package, with the manuals and everything? If you, try reading through the manuals again they should be able to help you.
3. Don't worry about AmigaDOS, most people don't understand it. This isn't helped by Commodore's decision to not include an AmigaDOS manual with the A1200. If you are keen to learn about it then keep reading CU AMIGA, or nip down to your local library and ask them to get in any

of the relevant (and useful) Bruce Smith Books.

4. Ask your mum for some pocket money, and send it off to 17 Bit Software (tel: 0924 366982). Ask them for the best A1200 demos they've got - *Nine Fingers* is quite clever.

MISSING RAM

I have an Amiga 4000/030, 4Mb of fast RAM, 2Mb of chip RAM and a 240Mb hard drive. However, my RAM disk always has 75K occupied even when there aren't any programs or background tasks running. When I search the RAM disk in the Shell, there appears to be three directories using this space: ENV, Clipboard and T. I have tried to delete these three directories but the computer tells me that they are in use, even when they appear not to be.

This is extremely annoying because it eats up my precious RAM! Can these files be installed on the hard disk instead? Why are they there and how can I delete them? Steven Browne, Darby Green, Camberley, Surrey.

Personally, I think 75K is a small drop in the ocean of a whopping 4Mb of RAM. The files you mention as occupying too much space are actually good things - you shouldn't delete them.

The reason they are 'in use' even when there aren't any programs running is because the operating system is using them. Therefore it would be extremely ill-advised to delete them.

The T drawer is a temporary

storage place. Many programs use it, and having it in RAM speeds up a lot of operations. If you edit the startup-sequence you can alter it to reside on the hard disk if you really want, although the benefits are negligible.

The clipboard is an extremely useful concept. Many programs allow cutting and pasting, but the really clever ones will all support the clipboard. This means one program can cut some text, and another program can paste it. In the meantime the data is stored in the clipboard's directory.

During the startup-sequence, the ENVARC drawer is copied from the Workbench partition to the ENV drawer in RAM. This ENV directory contains all sorts of useful information. Some applications will keep their settings here, but you'll also find default icons and all sorts. ENV is a very useful thing, so don't try and nuke it!

If you really want to save RAM, always switch off the Workbench screen when running an application. Most programs should have this as an option. If you can't do this, make the Workbench use as little memory as possible by cutting the colours down to two, and shrink the screen down to 640X 200. This setting can be saved as a preference file, which you can then leave out on the Workbench.

Incidentally, I hope your A4000's fast memory is made up from a single 4Mb SIMM. If you have 4 x 1Mb SIMMs fitted, you'll have to throw them away when you need more memory. Actually, I had a bit of luck with a dealer that was prepared to give me a good trade-in deal on my two 1Mb SIMMs, so shop around.

INSTALL BLUES

I have an Amiga 1200 with 4Mb of RAM, a co-processor and a 165Mb hard drive. I have tried to install Star Trek and Deluxe Paint IV but neither of these programs will run. How do I get these programs to run?

Also, how can I get programs such as Maxiplan4 to use the higher resolution screens available, now that I am the proud owner of a Microvitec monitor?

Adrian Bernascone, Shoreham-by-sea, West Sussex.

I followed the instructions that came with *Star Trek* and didn't have any problems. So, I suggest you read the manual again very carefully. As *Deluxe Paint* came with your A1200 pack, there probably weren't any specific hard disk installation instructions. In this case, drag all the icons from the floppy to the hard disk but make

LETTER OF THE MONTH

Being a cosole (sic) owner as well as an amiga owner I thought that some things need clearing (sic) up about the cd32 owners.

1. sell
2. stop hoping for conversions (sic) of pc megad games its (sic) not going to happen (sic)
3. There was a rumour (sic) of x wing being converted guess what well its (sic) not
4. Dont (sic) listen to mags there (sic) full of bull
5. A1200 cd drive ha ha
6. buy a pc
7. use the cd32 as an ash tray
8. swap for mega cd
9. looking forward to tix in february (sic) try june instead.
10. You have alwavs (sic) got liberation nice game play about the graphics and slow down.
11. good buy (sic) you loosers

The CD32 Hate Club, whereabouts unknown.

Wow! Well, that's me put in my place. How could I possibly argue with such a well written, clear and accurate letter? I'll dump my Amiga and buy a Mega CD tomorrow.

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sure that the special *Deluxe Paint font* has also been added to your default fonts directory on the hard disk.

To get older programs such as *Maxipaint4* to use the new screen modes, use mode promotion from the *Prefs* program *iControl*. If this doesn't work, use one of the many PD utilities to force the screen mode. I have used *DoubleX* with great success.

PICK A CARD



I'm the proud owner of an A1200 with an 80Mb hard drive. Over the last year or so I've managed to find a use for almost all the ports, give or take a few.

I am very pleased with my machine. However, there is a total lack of support for the PCMCIA port at the side of the computer.

This morning, I happened to be leafing through my Dad's latest edition of *What PC and I* came across an article on PCMCIA cards. It seems that in the PC world there is a wealth of different cards, including modem cards.

I realise that the port is meant to be a standard, so it is possible to use any of the cards you find in PC magazines in my Amiga? Also, why are all the cards I see advertised for memory only.

Stuart Lees, Dursley, Gloucestershire.

As you said, the PCMCIA slot is supposed to be standard, but there already are several different PCMCIA 'standards' and as a result several different-sized cards (II and III being the main culprits). However, this is not the main problem.

Theoretically, it's possible to stick any PCMCIA modem card in the Amiga's slot and use it. In practice it's not so easy, because no-one has released any driver software to use it.

The same goes for all the other cards that there is only a remote chance that there is any suitable driver software, while memory cards are supported by driver software in the operating system.

With the correct software, total compatibility is hard to come by: even in the PC world, it's not possible to guarantee that a card will work with any PC. PCMCIA is, at the moment, an evolving standard, and there is still a lot of work to be done.

However, on the bright side there are some peripherals that support the card slot. Apart from the many memory cards around, you can connect the excellent HiSoft (Tel: 0525 718181) VideoMaster digitiser. The PCMCIA slot runs considerably faster than the parallel port used by rival

digitisers (Rombo's (Tel: 0506 466601) VIDI for example). HiSoft are also rumored to have a 12-bit sound sampler coming soon, which will connect via the PCMCIA slot. GVP are also working on a stereo sound sampler (which will coincidentally also work on PCs). If you look around, you will also find A1200 networking hardware and I suspect that a SCSI interface is on the cards (dreadful pun).

CD32 EXPANSION



I own an A500, but for some time I have been considering buying a CD32. Please answer the following questions:

1. Is there really an add-on keyboard and disk drive? If so, what would the benefits be, could I run my old A500 software on it, and could I use Workbench?
2. Would it be possible to link up the CD32 to my A500 and if so, what equipment would I need? What benefits would it give me?
3. Finally, what games will be especially written for the CD32?

Darren Killoran, Lower Early, Reading.

1. At the time of writing, no - there isn't an add-on keyboard. There is some speculation that Commodore are going to release a keyboard but this hasn't been confirmed yet. This would add full A1200 functionality to the CD32, so yes, many A500 games would work and yes, you could use Workbench.

2. You can link a CD32 to an Amiga computer. Brian Fowler Computers (0392 499 755) produce a cable that uses the CD32's keyboard socket as a serial port, which means the CD32 can be connected via the serial version of *ParLink*. This means the CD-ROM drive can be used on the other Amiga as a device such as CD0: You can then use any of the dozen or so public domain compilation CDs available.

3. Keep reading CU AMIGA's CD32 news pages for details on the latest games and conversions.

I LIKE FLICKER



I am planning to buy an A1200 quite soon, with a monitor, but I am not sure which monitor to buy. Do I need a multisync monitor?

Besides *Deluxe Paint* AGA, do all of the Amiga specific games and applications actually use the high resolution displays that the multisync is needed for?

Also, I have seen a *Conner 15ms*

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DART Computer Services

» internal IDE hard drive advertised for £129.99 and would like to know if this is good value. It has 64MBs. And, is it easy to fit at home? Graham Gordon, Birmingham.

No, you don't need a multisync monitor. As the A1200 can be used with an ordinary television set, the video output must be about 15KHz. This means it can work perfectly with a standard colour monitor such as the Commodore 1084S.

However, try this. Adjust your workbench screen so that it is 640 by 512, the screen will be in an interlaced mode. Looks nice doesn't it? Lots of room for icons and windows. Notice how the fonts in a DTP or Page Publisher program look great. Pity about the flickering though.

With a multisync monitor, the flickering will disappear. It's as simple as that: larger displays, no flicker. If you can live with smaller-sized screens or you don't mind the flicker, then you don't need a multisync. You can still use all the extra colour modes offered by the AGA chipset.

All games use the lo-res modes so that they can be displayed on television, and so a multisync would have absolutely no benefit if that is all your Amiga is used for. On the other hand, most productivity software titles now make use of the new screen modes and so, when using *Final Writer* or *Wordworth*, the screen displays are all correctly proportioned and very easy to work with.

The value of the hard drive depends on if it has a 2.5 inch or 3.5 inch mechanism. The smaller drives are easy to fit but a bit expensive. The 3.5 inch drives are cheaper but require a bit of effort. I still think 64Mb is too small, and you should try for 130Mb or 214Mb for a first drive if you can possibly afford it. Certainly, any less than 64Mb and you will be wasting your money - you'll fill it within weeks.

HONESTY WINS

I am 15 years old and I own an Amiga 600. I have dabbled with AMOS and have come to the conclusion that it is crap. I apologise for the language, but I like to be honest and straight to the point, and I hope you will be too (no boffin jargon please).

I want to use my Amiga to learn to program, in the hope that one day I will be the number cruncher behind some future AMOS and, but I have come to realise that AMOS is not the way forward. I have sold my copy of AMOS and now I would like to ask a few questions:

1. Is the next step C?
2. I've had a peek at *Blitz Basic 2*, is it worth taking a better look?
3. Is there an Action Replay cartridge available for the A600?
4. If not, why not?
5. What is the difference between C and Assembler?
6. Which program is used by the biggest percentage of software houses? Can you name two top games written in this.
7. Which program is likely to lead me to:

- a. A career in programming?
 - b. Grief?
8. Where can I get any of these programs from, and how much are they likely to cost?
9. What do you advise me to do? Please help.
- I am serious about wanting to code, and really want to make it more than just a hobby.
- Mike Howard, Runcorn, Cheshire.

I'm sorry that you've written off AMOS so quickly. AMOS is a good programming package, as it offers an integrated programming environment (editor, interpreter and so on) in one easy-to-use unit. It is also very fast and allows good use of the Amiga hardware. Many fine programs have been written in AMOS.

By the way, the term 'number cruncher' normally refers to computer hardware, you don't want to grow up to be a microprocessor do you?

1. The language C would well be the next step, but it depends where you are going.
2. *Blitz 2* is a very good. Unfortunately, it is also BASIC-based like AMOS, so you might think it's crap. I think it is an excellent system though.
3. No, there isn't an Action Replay cartridge for the A600.
4. There isn't a suitable expansion port on the A600 to stick it in.
5. They are completely different languages. C uses vaguely english-like statements:

```
int i; for (i=0; i<10; i++)
{print("%d\n");}
Assembler uses more simple instructions like:
move.w #10,d0 loop jsr
_printnumber dbf.w d0
```

Assembler is very machine specific (the Amiga and PCs use totally different assembly languages) but very quick. C is also fast, but it is also platform independent - apart for the graphics and sound parts, a C program will run on an Amiga, a PC or a Mac. When writing games it is usually best to use a combination of both.

Neither language comes with any graphics or sound support, it's entirely up to you to write it all. This is what makes AMOS and *Blitz* so easy to use - all the hard stuff has been done for you.

6. Most software houses will use assembler, although some of

the more far-sighted use C and C++. Pick any game in the Amiga charts and it will be almost totally Assembler, with bits of C here and there.

- a. The best language to learn would be C or C++.
 - b. It could be C. It's not easy, but try COBOL for some real suffering.
8. You can get good C compilers from most Public Domain libraries. Look out for *DICE* and *North C*. There are also Assemblers in the Public Domain too, such as *ASM68K*.

9. The choice of programming language isn't half as important as the way you program. Most software could have been written in any language, it's the way you write it that's important. Learning to program is independent of which language you use.

If you want to make programming your career, do some A levels and go to university. Get a BSc or BEng in Computer Science and start work for IBM, ICL, or any other big company. Some colleges are starting courses specifically in programming video games, so ask your careers teacher at school.

Alternatively, learn to program (trying as many languages as possible) and bluff your way onto a large computer company's aptitude test.

ANSI ART ATTACK

I've been buying CU AMIGA for a year and a half now, and I've read all the tutorials. However, I haven't seen any tutorials about ANSI/ASCII art. What about a tutorial or an ANSI/ASCII art gallery? I know it's a lot to ask but you at least think about it?

I am co-synop of a board called Blue Steel BBS and the boys and I have just started to draw some brand new screens which will hopefully impress our users.

Why not come and have a look at the ANSI screens? Call our BBS on 0742-674054. Craig Mellon, Swallownest, Sheffield.

Why do I get the feeling that your letter was just some poor attempt at getting a free plug for your board? Anyway, to those for whom ANSI art is a complete mystery, let me explain.

Normally, when you use your modem to dial onto a Bulletin Board System (BBS) you get pretty boring on screen text. However, if your software (for example NComm or the fabby *TERM* - both available from public domain libraries) supports ANSI graphics you can view some

coloured pictures. The resolution isn't great (about Teletext standard) but anything is an improvement on boring text. Craig, if enough people send in ANSI screens I'm sure there can be an Art Gallery special. In the meantime, please send some of your best pictures to illustrate the *Wired World* column.

Incidentally, any other Sysops wanting a plug, please write to *Wired World*, or drop me an Email c/o Fidonet (my address is 2-443/13.4 and my Boss is Colin Turner at The Heart of Gold - tel: 0247-274919).

BASIC APPROACH

Please find enclosed a copy of a letter that I sent you in December 1993, and as yet I have had no reply in CU AMIGA,

which I can't just understand. As I pointed out, I am a newcomer to Amiga computing, and I thought you would give a bit more thought to us novices, besides which I thought your magazine was maybe the best one to buy as I have heard a bit of praise from others who read it.

Well, then takes care of my little man, now maybe you can help me with the following questions.

1. How do I go about entering BASIC into my computer, and what is the best language to learn?
 2. Do I have to buy special software for the above?
 3. How do I make any of my programs bootable?
- John Robinson, Hartlepool, Cleveland.

I'm sorry, but there simply isn't space to answer every letter sent to Q&A. The space is limited, and we have to make best use of what we've got. Your last letter just didn't make it.

1. The Amiga doesn't have a programming language built in. You can try and use the supplied *ARexx* language to start with, but I suggest you buy a BASIC programming package such as *Easy AMOS* or *Blitz Basic*. Although C and Assembler can be described as more powerful languages, I strongly recommend you try AMOS or *Blitz* first.

2. Yes, try *Hisoft* (Tel: 0525 716181) and *Europress Software* (Tel: 0626 659333).

3. This depends on the particular programming package you use, some won't create a individual stand-alone program, in which case you're stuck. Otherwise, it's a matter of copying the program icon into the *WB* Start-up drawer, or inserting the name of the program in the User-startup file in the S: directory.

SOUND LAB

OctaMED 4 just isn't complete without a sampler plugged into it, but which one should you buy? Tony Horgan emerges from the lab with some answers...

PART 4

Last month we gave away the brilliant OctaMED 4 music program, along with a stack of samples for you to use. There are even more samples on this month's coverdisk, but if you want to get the most out of OctaMED, you should start sampling your own sounds. Before starting to do this, however, you'll need a sampler cartridge. There are quite a few to choose from, with prices ranging from around £30 to over £200. Here's a quick guide to the main contenders to help you choose the one that's right for you.

All sampler cartridges come as a combined software and hardware package. The hardware contains the essential analogue-to-digital converter (the part that turns the sound wave into numbers that the computer can read). Just about all samplers plug into the parallel port at the back of the computer, and are compatible across all Amigas. Sound reproduction quality varies from one cartridge to another, but not to a great extent.

The other side of the coin is the software. Now that you have OctaMED, you won't have to use the software that comes with the sampler. Even so, quite often the sampler's software will have extra editing features that you won't find in OctaMED, such as extra effects routines, real time effects processing, sampling into Fast RAM, hard disk recording and so on. So, bring forth the samplers...

16 BIT SAMPLERS

OctaMED uses the Amiga's standard 8-bit sampling and playback routines, so you can't use it directly with a 16-bit sampler.

However, you could sample your sounds in 16 bits, and convert them to 8 bits. This might sound pointless, but the down-graded samples will sound clearer than if you had just sampled with 8 bits in the first place. The Sunrize ADS16 board, together with the Studio 16 software is the leading 16 bit Amiga sampler. It's a nice system, but it is geared towards creating soundtracks for audio-visual projects, rather than making music. Available from Premier Vision (tel: 071 274 4407) Price: £1,000.

Clarity 16 is a far cheaper option at £150, available from Microdeal (tel: 0525 713671). (Unlike the Sunrize system, Clarity doesn't sample to a hard drive, choosing instead to play all its samples direct from RAM. The software is very basic, but allows you to trigger up to four samples from an external MIDI source, so long as your Amiga is fast enough. Clarity is probably best used as a sampler for use with a dedicated sample-playback unit.

MEGALOSOUND

£34.95 MICRODEAL
TEL: 0525 713671

Now this is a bit more affordable. What's more, it's just about the best all-rounder after Audio Engineer. This cartridge also has a gain control, although it's a fairly fine thing rather than a big knob. The cartridge itself is tiny, smaller than a box of 5-amp Vaseline. There are no complaints on the sound quality, now everything comes through nice and clearly.

If you want effects, you're spoilt for choice here too. The software is loaded with echoes, reverb, filters, sweeping filters, distortion effects, tremolo, vibrato, phasers, smoothing, chorus, EQ filters and all kinds of really stuff. There's also a very clever looping feature that automatically finds loop points that sound seamless. You can save record samples direct to hard or floppy disk. The interface doesn't have any pull down menus, which can be a bit of a pain if you don't know where certain features are, but that aside, it's hard to fault. Megalosound, it's cheap too!



TECHNOSOUND TURBO 2

£49.99 NEW DIMENSIONS
TEL: 0291 690933

Technosound has been around long enough to find its way into the heart of many Amiga users. The cartridge gives acceptable results, although it does introduce a little of its own background noise.

Features are in abundance when it comes to the software. There's hard disk recording, loads of real-time effects, a built-in sequencer and a RAM-scan mode for taking samples left in memory from previously loaded programs. You can also use the MIDI module mode to get your Amiga to act as an out-board MIDI device, to be controlled from a keyboard or a sequencer running on another system. The interface is clumsy, but if you can stand that, Technosound Turbo 2 would make a good buy.

DSS8 PLUS

£69 SILICA SYSTEMS
TEL: 081 309 1111

A clear plastic case gives DSS8 a trendier look than the other sub-£100 samplers, but apart from that, it's pretty much business as usual on the hardware side. It can be a bit noisy when used with the accompanying software, but strangely it performs better with third-party software.

It's not that heavy on features, but does have a handy tracker, and the interface is easy to use. One unique feature it does have, is the software high frequency filter. If you turn this on before sampling, you end up with a lot less hiss on your sound, which helps it grab very clean bass sounds. It's a bit over-priced for what's on offer, but does its job well.

AUDIO ENGINEER PLUS 2

£159.99 HOBBYTE
TEL: 0727 856005

As it is the most expensive 8-bit sampler available, you might expect Audio Engineer Plus 2 to be the best, and it is.

Unlike most other samplers that plug directly into the back of the Amiga, Audio Engineer's hardware has a short connecting ribbon, allowing you to place the unit on top of the Amiga, from where you can easily twiddle the controls on the front panel (users of the "big box" Amiga will find it less accessible). There's a "gain" knob on the

sampler to give you more control over the incoming sound level.

Sound quality from the cartridge is excellent, with the best frequency response across the sonic range of any 8-bit sampler.

The software too, is second to none. It can sample into Fast RAM, which is very handy, as you can take massive samples in one go, and then chop them up and save them out in more manageable chunks. It doesn't have a massive range of effects, but it's the only sampler to have a time-stretch feature.

Time stretching is when you alter the speed of a sample, without changing the pitch, or vice versa. It's very useful for getting long loops and vocals to fit in a different tempo, when you don't want to alter the tuning. Even if you don't need that, the software is still the most comprehensive and user-friendly of the lot. However, whether it's worth paying the four times as much as you would for a budget sampler is a question worth debating.



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
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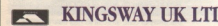
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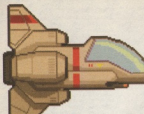
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- 0184 **FILE** DISCOVERING how to use Amiga 1.2 and what makes compatibility possible
- 0185 **ANIMATE** 1 Day's 2 Day's 3 Day's 4 Day's 5 Day's 6 Day's 7 Day's 8 Day's 9 Day's 10 Day's 11 Day's 12 Day's 13 Day's 14 Day's 15 Day's 16 Day's 17 Day's 18 Day's 19 Day's 20 Day's 21 Day's 22 Day's 23 Day's 24 Day's 25 Day's 26 Day's 27 Day's 28 Day's 29 Day's 30 Day's 31 Day's 32 Day's 33 Day's 34 Day's 35 Day's 36 Day's 37 Day's 38 Day's 39 Day's 40 Day's 41 Day's 42 Day's 43 Day's 44 Day's 45 Day's 46 Day's 47 Day's 48 Day's 49 Day's 50 Day's 51 Day's 52 Day's 53 Day's 54 Day's 55 Day's 56 Day's 57 Day's 58 Day's 59 Day's 60 Day's 61 Day's 62 Day's 63 Day's 64 Day's 65 Day's 66 Day's 67 Day's 68 Day's 69 Day's 70 Day's 71 Day's 72 Day's 73 Day's 74 Day's 75 Day's 76 Day's 77 Day's 78 Day's 79 Day's 80 Day's 81 Day's 82 Day's 83 Day's 84 Day's 85 Day's 86 Day's 87 Day's 88 Day's 89 Day's 90 Day's 91 Day's 92 Day's 93 Day's 94 Day's 95 Day's 96 Day's 97 Day's 98 Day's 99 Day's 100 Day's 101 Day's 102 Day's 103 Day's 104 Day's 105 Day's 106 Day's 107 Day's 108 Day's 109 Day's 110 Day's 111 Day's 112 Day's 113 Day's 114 Day's 115 Day's 116 Day's 117 Day's 118 Day's 119 Day's 120 Day's 121 Day's 122 Day's 123 Day's 124 Day's 125 Day's 126 Day's 127 Day's 128 Day's 129 Day's 130 Day's 131 Day's 132 Day's 133 Day's 134 Day's 135 Day's 136 Day's 137 Day's 138 Day's 139 Day's 140 Day's 141 Day's 142 Day's 143 Day's 144 Day's 145 Day's 146 Day's 147 Day's 148 Day's 149 Day's 150 Day's 151 Day's 152 Day's 153 Day's 154 Day's 155 Day's 156 Day's 157 Day's 158 Day's 159 Day's 160 Day's 161 Day's 162 Day's 163 Day's 164 Day's 165 Day's 166 Day's 167 Day's 168 Day's 169 Day's 170 Day's 171 Day's 172 Day's 173 Day's 174 Day's 175 Day's 176 Day's 177 Day's 178 Day's 179 Day's 180 Day's 181 Day's 182 Day's 183 Day's 184 Day's 185 Day's 186 Day's 187 Day's 188 Day's 189 Day's 190 Day's 191 Day's 192 Day's 193 Day's 194 Day's 195 Day's 196 Day's 197 Day's 198 Day's 199 Day's 200 Day's 201 Day's 202 Day's 203 Day's 204 Day's 205 Day's 206 Day's 207 Day's 208 Day's 209 Day's 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510 Day's 511 Day's 512 Day's 513 Day's 514 Day's 515 Day's 516 Day's 517 Day's 518 Day's 519 Day's 520 Day's 521 Day's 522 Day's 523 Day's 524 Day's 525 Day's 526 Day's 527 Day's 528 Day's 529 Day's 530 Day's 531 Day's 532 Day's 533 Day's 534 Day's 535 Day's 536 Day's 537 Day's 538 Day's 539 Day's 540 Day's 541 Day's 542 Day's 543 Day's 544 Day's 545 Day's 546 Day's 547 Day's 548 Day's 549 Day's 550 Day's 551 Day's 552 Day's 553 Day's 554 Day's 555 Day's 556 Day's 557 Day's 558 Day's 559 Day's 560 Day's 561 Day's 562 Day's 563 Day's 564 Day's 565 Day's 566 Day's 567 Day's 568 Day's 569 Day's 570 Day's 571 Day's 572 Day's 573 Day's 574 Day's 575 Day's 576 Day's 577 Day's 578 Day's 579 Day's 580 Day's 581 Day's 582 Day's 583 Day's 584 Day's 585 Day's 586 Day's 587 Day's 588 Day's 589 Day's 590 Day's 591 Day's 592 Day's 593 Day's 594 Day's 595 Day's 596 Day's 597 Day's 598 Day's 599 Day's 600 Day's 601 Day's 602 Day's 603 Day's 604 Day's 605 Day's 606 Day's 607 Day's 608 Day's 609 Day's 610 Day's 611 Day's 612 Day's 613 Day's 614 Day's 615 Day's 616 Day's 617 Day's 618 Day's 619 Day's 620 Day's 621 Day's 622 Day's 623 Day's 624 Day's 625 Day's 626 Day's 627 Day's 628 Day's 629 Day's 630 Day's 631 Day's 632 Day's 633 Day's 634 Day's 635 Day's 636 Day's 637 Day's 638 Day's 639 Day's 640 Day's 641 Day's 642 Day's 643 Day's 644 Day's 645 Day's 646 Day's 647 Day's 648 Day's 649 Day's 650 Day's 651 Day's 652 Day's 653 Day's 654 Day's 655 Day's 656 Day's 657 Day's 658 Day's 659 Day's 660 Day's 661 Day's 662 Day's 663 Day's 664 Day's 665 Day's 666 Day's 667 Day's 668 Day's 669 Day's 670 Day's 671 Day's 672 Day's 673 Day's 674 Day's 675 Day's 676 Day's 677 Day's 678 Day's 679 Day's 680 Day's 681 Day's 682 Day's 683 Day's 684 Day's 685 Day's 686 Day's 687 Day's 688 Day's 689 Day's 690 Day's 691 Day's 692 Day's 693 Day's 694 Day's 695 Day's 696 Day's 697 Day's 698 Day's 699 Day's 700 Day's 701 Day's 702 Day's 703 Day's 704 Day's 705 Day's 706 Day's 707 Day's 708 Day's 709 Day's 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GAMES PROGRAMMING WITH BLITZ BASIC 2

Daniel O'Connor

looks at *Blitz Basic's* data structure to find out why it's the games programmer's best friend...

So far all the demo programs we've written have been very basic indeed, consisting of no more than two objects (shapes) moving around the screen. However, whilst this might be enough for a very simple game like *Pong* or *Break Out*, it's perhaps a little bit too limiting for most games. Imagine how boring a game like *Project X* would be if there were only two aliens to kill at any one time!

Keeping track of just one or two of shapes is very easy indeed, but what do you do if your game uses many different objects all of which may appear on the screen simultaneously, yet they move independently of each other? Using the rather amateurish approach of assigning each object a set of separate variables, keeping track of just four or five objects could be very code intensive! Take a game like *Alien Breed* for example. Because the aliens do not move around in fixed movement patterns like a squad of soldiers, each alien needs its own set of parameters which defines where it is on the screen, what it's doing and so on.

Of course the simple solution would be to assign a set of unique variables to each alien: `ALIEN1X, ALIEN1Y, ALIEN2X, ALIEN2Y` and so on. Okay, so it would work but you'd soon end up getting completely bogged down in code. What's the solution? Well, ask any games programmer and regardless of their background or the types of game that they write, chances are they'll give you the same answer time and time again – the data structure. Fact is, the data structure is perhaps the most important ingredient in any games programming project and once you've mastered the theory, you'll find that there are very few games that you can't write yourself!

The data structure is one of the most powerful aspects of languages such as *C* and *Modula-2* but it's been strangely absent from modern BASIC implementations. Unlike *AMOS*, *Blitz* supports true data structures using its powerful 'NEWTYPE' statement. This is a much more powerful facility than the conventional (and rather limited) arrays that *AMOS* games programmers have to contend with.

DATA DESTRUCTION

A data structure provides the games programmer with a quick and easy method of grouping together several unique items of data under a single heading – *ALIEN*, for example. Say you wanted the following items of data to be held on each alien in your *Alien Breed* beater:

```
XPOS: the X screen position of the
alien
YPOS: the alien's Y screen position
```



Data structures are very important if you want to write games that have many objects moving around the screen independently of each other.

STATUS: the alien's status. What is the alien doing?

DIR: the alien's direction of movement.

You would therefore create a 'NEWTYPE' structure that held all this information in the form of a data structure. And, in true *Blue Peter* fashion, here's one I created earlier...

```
NEWTYPE alieninfo
XPOS.w
YPOS.w
STATUS.w
DIR.w
End NEWTYPE
```

There's a couple of points worth noting about the above NEWTYPE definition. For starters, note how a full stop 'precedes the name of the data structure. This is very important as it tells *Blitz* that this is a definition and not a data structure in its own right. All the NEWTYPE command does is tell *Blitz* the format of your data structure, it doesn't actually create the data structure itself. Think of it as drawing up a set of blueprints for your data structure.

If you've ever done any form of 68000 assembly language programming then you'll recognise the little 'w' symbols after each variable definition. Just like assembly language, these tags tell *Blitz* the type of data that the variable will be expected to handle. *Blitz* supports a number of data types (not to be confused with the data types facility offered by *Workbench 3.0*), each with their own unique identifying letter.

Here's a quick rundown of the more commonly-used data types:

```
.b = byte
.w = word (2 bytes, 16 bits)
```

Player's Ship Data Structure

NEWTYPE ship

```
XPOS.w : X Position
YPOS.w : Y Position
SPEED.w : Speed
STATUS : Ship Status
FRAME : Animation Frame
```

End NEWTYPE

Every object in a game has its own data structure that tells *Blitz* how the object should behave and its current status.

```
.l = longword (4 bytes, 2 words, 32 bits)
```

```
.f = float (floating point number)
```

Defining a data structure using the NEWTYPE command is only half the battle as it is nothing more than a definition that tells *Blitz* how to store data. In order to set aside the memory which will be used to hold the actual data, you need to create an array using the 'DIM' statement like so:

```
DIM alien.alieninfo(50)
```

This would give you 50 copies of the same data structure and would also automatically set aside the memory necessary to hold all that data in memory. Note, how the name of the data structure is split into two halves with a full stop separating them. Look carefully and you'll notice that the second half of the data structure definition is the same as the name we used when defining the format of the data structure with the NEWTYPE command. What we're doing is telling *Blitz* to create an array of data structures called 'alien' using a newtype called 'alieninfo'. Once the array of data structures has been created, we

no longer have to refer to the array using the 'alien(n)' extension - 'alien(n)' would do the job just as well.

Accessing the individual items of data inside a data structure is very simple indeed. All you need to do is provide Blitz Basic with what can be best described as a 'pathname' to the variable you're attempting to access. Say, for example, you wanted to write a value of '15' into the 'XPOS' variable in the fourth data structure in our array (that's 'alien(3)' - don't forget that arrays start at element zero and not element one). You would therefore use the following command.

```
alien(3).XPOS = 15
```

The key to all this wonderful variable manipulation is that little forward slash character '/' that separates the 'alien(3)' bit and the name of the variable itself. Just like in AmigaDOS, this slash character works as a separator to differentiate between the different 'levels' of a data structure.

Also like AmigaDOS, there is a much easier method of accessing data within a data structure array that doesn't require you to type in the entire pathname every time you wish to access a variable. You can tell Blitz to change its 'current directory' (in AmigaDOS terms) so that it literally moves inside the data structure. The AmigaDOS command to do this would be 'CD' but Blitz has its own CD-like command - USEPATH. All you need to do is to pass the command the 'pathname' of your data structure and you can then access your variables directly. Going back to our earlier example, you could therefore do the same job with the following lines of code.


```
USEPATH alien(3)
XPOS = 15
```

It's worth noting that despite the fact that we've used the USEPATH command to 'lock on' to the data structure that we're interested in, Blitz still insists that we put a forward slash character before any variables within the data structure. Although it can make your code look rather confusing, you'll soon get used to this idea.

CHAIN LETTERS

Using an array to group together lots of data structures of the same format is all very well if you know that every data structure 'element' in the array will be used. If, on the other hand, only a couple of the array elements are ever in use at one time, scanning through the entire array every time you wish to update your aliens (or whatever) is wasting precious processor time. A much faster method is to take advantage of Blitz Basic's 'linked lists'.

Anyone who has studied computer science should feel at home with the linked list. For the benefit of those of you without HNDs though, a linked list is a complex array that provides instant access to the elements within an array that are actually used. What's more, they need to run in order (like a conventional array) - Blitz Basic automatically handles an 'index' that points to the next used element within the linked list. So what? I hear you ask. Well, linked lists are very useful in games programming as they allow you to write routines that process only those elements within an array that are actually in use. Say, for example, you had an array that handled thirty aliens. If the array handled a maximum of 100 aliens but only three aliens were actually on the screen, there would be very little use in scanning the other 97 empty array elements. You could theoretically do this with a conventional array, but Blitz's linked lists do all the work for you.

In order to create a linked list, all you have to do is to use the 'Dim List' command rather than the 'Dim' command when you first create your array. This tells Blitz that the array should be a linked list rather than a conventional sequential array. Unlike a conventional array, you should never access a linked list array element unless you know exactly what you're doing. Instead, you should use the commands that Blitz offers that allow you to move back and forth through the structure of the linked list. Check out the box below for a complete rundown of the commands on offer. 

LINKED LISTS

RESETLIST: Goes to the very first element in the linked list. Even if there aren't any items in the array, this command must be called.

CLEARLIST: Empties the specified array.

ADDFIRST: Allows you to insert data into a data structure which is then treated as the first element in the linked list. This causes all other elements to be 'bumped' forward by one.

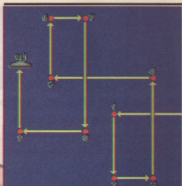
ADDLAST: Allows you to insert data into a data structure which is then tacked onto the end of the linked list.

ADDTITEM: Allows you to insert a new list element directly after the 'current' element.

KILLITEM: Kill the current linked list element.

PREVITEM/NEXTITEM: Move back and forth through the linked list.

FIRSTITEM/LASTITEM: Jump directly to the first or last elements in the linked list.



Most games that use complex movement patterns for computer-controlled objects use what games programmers call 'look up tables'. A look up table contains a list of co-ordinates.

GET THE LOOK

If you're writing an arcade shoot 'em up game, taking the lines of Project X or Blaster may be one of the most important aspects of the game's design is the attack patterns used by the marauding aliens that fly across the screen to attack the player's ship.

Most amateur games programmers tend to stick with the simplistic 'straight line' attack pattern that moves your aliens from one side of the screen to the other with little or no variation in their flight pattern. Although this can be effective if the screen is hectic enough, just about any games player worth their salt will be able to beat your game just by moving their ship to the right position.

A far more interesting and more challenging method of controlling groups of aliens is to use 'movement paths' or 'attack patterns' as they are also known. A movement path defines what directions a shape (or a group of shapes) must travel to get from its start position to the point where it leaves the screen (if it gets that far). For more complex patterns involving many changes in the direction and even the speed of a shape, games programmers use what is commonly known as a 'look up table'.

Although the name may sound very grand, look up tables are a very simple programming principle. A look up table contains a list of coordinates that defines the path of an object as a series of steps. How many steps you have in the look up table defines the complexity of the object's movement path. For example, if you have just two steps in the path, the object would appear, move once and then disappear - hardly awe inspiring.

The data in a look up table consists of sets of co-ordinates that define what programmers call 'delta' moves. Delta moves are nothing more than relative values that define where an object should move relative to its last position. If, for example, an alien was positioned at 100, 200 and its delta co-ordinates were 10, -20, the alien would move to 90, 180. How you generate the delta co-ordinates is up to you, but most games programmers write a utility which allows them to pre-movement patterns which are then saved or to disk as co-ordinates. Alternatively, you can write your program in such a way that the values held in the look up table are generated at 'runtime'. That is, every time the game is run.

```
File: ds.BB2
*** Look up table, data structures and maths demo
*** By Daniel O'Connor for CU Amiga

NEWTYPE .ballinfo : *** Ball X position
                  : *** Ball Y position
                  : *** Position in look up table
End NEWTYPE

NEWTYPE .lookuptable : *** 3 co-ordinate
End NEWTYPE

Dim BALL.ballinfo(5) : *** 5 data structures for balls
Dim TABLE.lookuptable(365) : *** Define look up table

HEIGHT = 50 : *** Height of sine wave
WIDTH = 1 : *** Width of wave
POSITION = 128 : *** Position of centre of wave

*** Generate look up table co-ordinates...
for i = 0 to 365 : Set i to 0.0025
  USEPATH TABLE(i)
  X = INT(COS(INCPI*2*60)/HEIGHT+POSITION)
next i

*** Set up ball data structures
line 1 Column 1 Largest Mem CK: 2047
```

One of the most powerful aspects of the Blitz language is its 'NEWTYPE' facility which allows you to use true C-like data structures and linked lists.

BACKCHAT

Roll up your sleeves, get pen to paper and look intellectual. Tony Dillon enjoys a good argument or a chat.

LETTER OF THE MONTH

NO MOTION

So Commodore have finally announced that they are going to release the CD-ROM drive for the A1200. Surprise, surprise there is no FMV card in it. Is this the same drive that they've been developing for the last year? The one that they weren't going to release because they couldn't fit an FMV card in it? Or is it a completely new drive? That would explain the fact that it isn't going to be released until September, an irritatingly long time considering the number of people who, like myself, bought an A1200 with the definite aim of upgrading as soon as the then-proposed drive became available. WHY IS IT TAKING SO LONG!

Okay, so the drive won't be able to hold an FMV card. So what? I can't see any situation where full motion video would be any use, except for watching films, and my VCR fits that purpose quite respectably at the moment. Perhaps Commodore think that FMV-only games are going to be the way forward. Quite why I don't know, as the PC CD-ROM market has had MPEG for a while now, and there is no sign of any true-colour only games. Even companies like Sales Curve, who are developing FMV games, are developing 256 colour versions at the same time.

The reason? Only a few people actually have FMV on their machines at the moment. Anyone who released for that small market would not make money, so software houses have to play to the lowest common denominator. I'm just a games player, and this has been apparent to me for quite some time. Why has it taken so long for Commodore to get it?

Denise Reddy, Liss.

I agree with you totally as regards the FMV-only side, however, there will be FMV games appearing, although they won't be exclusive. The whole software world is turning to FMV at the moment, and there is the chance that one day it will become as standard as a low resolution 32 colour screen is now, so you can't blame Commodore for wanting to be on the wagon, can you?

GO FASTER STRIPES

I read with interest T.S. Nielson's letter in the April issue of CU AMIGA concerning the rumoured existence of an accelerator for the A600.

Well, does it exist or doesn't it? Your magazine is supposed to be up to date with the latest in Amiga news, so I would have thought that you would be in a position to find out and inform your readers, after all it is in their best interests. I suspect that it's not in Commodore's best interests as it will stop people looking out for an A1200. Frankly I could not care less about Commodore and their financial problems as I am one of the many who bought an A600 when it was being marketed as the replacement for the A500.

I now have the extra 1Mb up the trapdoor, the 4MB in the PCMCIA slot and an 85Mb hard disk. I could really use an accelerator, more memory and Maths co-processor but I'm not going to spend £299 on an A1200 just to be able to add to it. Who cares about AGX chipsets? The new display modes aren't genlockable anyway.

I think a fair example of Commodore's marketing and sales ability is the fact that they allowed 1084S monitors to go out of stock over the Christmas period. I wanted to get one but couldn't, so in the end I bought a Mitsubishi Multisync with a 28 pin chip that can display the output (with an adapter from Trilogic) from almost any computer and very sharp it is too! I wonder how many other sales Commodore lost because of their ineptitude.

Okay, so we all know that Commodore don't really care about what happens to their customers but we don't have to accept it. We don't have to play their game. Perhaps if third-party manufacturers knew how many A600's were sold (and still are) it might make them consider that a range of products for this machine are still a viable commercial enterprise.

So to Mr. Pleasance I say, service your existing client base and stop warbling on about how wonderful the CD32 is – or lose future repeat business. You need to deal with existing problems before going out and creating a whole lot more!

I look forward to hearing from manufacturers concerning new products for the A600.
Alan Paterson, Aldershot.

Andy Leaning answers: Firstly let me assure you that Commodore do care! But as is often the case some things are beyond their control,

the monitor problem was just such an instance. To answer your question about A600 peripherals I spoke to the several of the leading Amiga developers: GVP, Power, Amitek, etc.

As I write this none of them are planning an A600 accelerator. The reasons given were all the same: lack of demand. None of these major developers believe A600 owners want an accelerator and therefore have no plans to produce one.

The root of the problem is that Commodore did such a good job on pricing the A1200. As you point out the A1200 is only £299 – a good accelerator for the A600 would start at around £150 and rise to about £250 with extra RAM. Most developers feel that average users won't want to spend £199 on an A600, and then another £200 (total £399) on an accelerator when they could buy a A1200 for £299 which would have the same power!

But it's not all bad news! Amitek, Power and GVP would consider changing their position if they thought there was demand it. So if you want an accelerator for your A600 write to and tell them, the CU AMIGA team would also be interested, drop us a line letting us know why you think an there should be an A600 accelerator and what you would like in it! Remember, it's in your hands!

MARK UPS

In reply to Alison Klerk's reply (April) to my letter (March), she is totally missing the point. What I was saying was that the music industry charges reasonable (10%) amounts for its goods making only a 500% profit (10%) whereas the software industry is making a 2000% profit on its goods.

I know we are all being ripped off left right and centre, but maybe a bit more by the software houses than anyone else.

50p for a can of coke! Ee by eck lass, yer want t' move up North. It's only 35p a can up 'ere, by gum lass!
P. Cigague, Wirral.

35p! With savings like that, how can you be concerned with software industry price inflation? But Coke is getting cheaper here in the south too. All you've got to do is go to France!

TEAM TALK:

What sort of Carry On is this? Asked publisher Mike Frey, after catching the entire team playing doctors and nurses on the fourth floor of EMAP Towers. And he was right to ask the question...

ALAN DYKES

"Carry On Amiga" said Alan, doing his damndest to imitate someone's name he can't



remember from the infamous Carry On movies. "If I keep waggling my stick in front of the screen like this, something's bound to happen!" (ha, ha). Very sad. But it gets worse.

LISA COLLINS

Attempts to persuade Lisa to imitate Barbara Windsor failed miserably. "Carry On movies



are degrading and sexist," said Lisa from her soap box. "They are the product of low intelligence and filthy minds". Phwoarrr – Lisa's lovely when she's mad.

IMPRESSIVE SKIDS

Just a couple of days I bought Skidmarks for my A500 and was completely amazed by the quality of the game. It just shows how the Amiga 500 can still thrash any Jap crap console when it comes to playable, smooth running and graphically amazing games. Many of my friends have Sega Mega Drives and claim that the Amiga would never be able to have a game as good as *Sonic The Hedgehog 2*, but why we want a game which to complete you just need to wedge the joystick right and select autofire.

I am also the proud owner of a CD32 and have recently bought Microcosm for it, and was also amazed by it. I am now waiting for the SX1 expansion module and keyboard which may one day emerge so that I can play Skidmarks with AGA cars.

It is good to see that software manufacturers are putting the playability before graphics, unlike on the consoles. I hope Acid Software will bring out some games for the CD32 and it is also nice to see that the price for CD32 games has stuck around the £25-£30 mark (unlike the Mega-CD) and the CD is now not just being used for CD soundtrack padding, but used to its full potential. Long live the Amiga and as the Commodore poster says, "To be this good will take Sega ages."

P.S. Tony D. should win an Oscar for Click. R. Frost, Wakefield.

We always welcome positive letters, and yours is one of the most positive we've come across in a long time. It's a shame you had to bring Click up though, as Tony ran screaming from the room as soon as someone mentioned it.

HONEST POLICY

I must thank you for the first honest review of *Labyrinth of Time* for the CD32. Yes the graphics are stunning but the game itself is so boring! You wander around for hours doing very little except getting stuck occasionally. When you do find an object to pick up or use it is usually required way over in another area of the game and you spend the next 20 minutes trying to get back there to see if it really does do the job.

As for the surreal maze, you can stick that in your basket of oranges. It's pretty and weird, but so annoying. This is the one place you need the automapping, and it doesn't work!

I would also like to thank you for being the only magazine to point out the worry I had. Every review spoke only of superb CD32 stuff - none of them mentioned that the box said the game would run on a bog standard A500 or CDTV. I kept thinking I had been ripped off and had the wrong version!

Steve Calkin, Canvey Island.

Everyone knows that CU AMIGA are an honest bunch. We like to pride ourselves on accurate reviews, viewed from the gamers point of view, instead of technical or industry viewpoints.

THE FAR SIDE

By GARY LARSON



"And notice, gentlemen, the faster I go, the more Simmons sounds like a motorboat."

RAMBLING FREE

It's been quite a while since I've felt compelled to write to a computer magazine but a friend (Mr I Fereday) and I have spent the last few years contemplating life, the universe and everything. Not so long ago we came upon that hallowed subject subject of the computer games industry. We reminisced on years gone by, those heady days when the Commodore 64 ruled the computer world. Oh how we would sit and wait nine or ten minutes for the games to load. It was in those early days that we learned patience. Games were aptery and you would never go short, some of the better games costing only two pounds.

But that's all in the past and now we have moved onto bigger, brighter and better machines. There's just one large difference between the older machines and the new, apart from the obvious, and that's the competition that used to run between companies to make better games. It seems that there are only a couple of international corporations (with hedgehog and plumber felishes) that churn out mediocre games dressed up with pretty graphics and sound and sell because of the media hype rather than creating hardcore, kick ass playable games (eg Cannon Fodder, Alien Breed). It seems that one company's idea, no matter how good or bad, is copied and decorated with different graphics. After all what difference is there between *Street Fighter* (1, 2, & Turbo editions), *Mortal Kombat* and *Body Blows* when they are all striped down to the bare bones. Some people might argue that it's the extras that make the game, but those different extras cost, and can leave you feeling cheated and broke at the end of

the day. NB we aren't just targeting these few games but all games that are essentially cheap clones of any idea.

Essentially, what we are saying is that now we have better computers let's use them. So, when all you console kids have finished playing with your toys, get some programming done and join in the ranks of real men and women (and small furry creatures from Alpha Centauri) playing, and leave a mark on the history of computer while it's still fresh. (It will be something to tell your grandchildren about.) Heath Robinson and Ian Fereday, Wolverhampton.

Words of wisdom there mate. The market needs you, and you need the market. The software industry is crying out for fresh, new talent, so if you've got a great design, or consider yourself to be the best coder ever, then get out there and show what you can do!

ANGRY OF AMERSHAM

I am very angry. Being a CDTV owner I am getting extremely sick and tired over all the CD32 hype. Yes it is a great machine, but what about its predecessor?

CDTV owners, like myself, have been left high and dry by Commodore. What ever happened to the rumoured trade-in offers where existing CDTV owners could possibly upgrade to an A1200 or CD32? Instead all we are left with is a bloomin' expensive A500 with a CD drive, shoved in a black box and a rapidly diminishing software selection. I have written to Commodore on several occasions regarding upgrades and trade-ins, and I am still awaiting a reply.

So on behalf of all the CDTV owners, I would like to ask you:

- 1) Are there going to be any trade-in offers? If so, how much and when?
- 2) Are there any upgrades available to bring a rapidly dating machine up to the current spec?
- 3) Is it worth ditching my CDTV and saving up to buy a PC which will not date as fast as an Amiga appears to.

Finally, I would like to thank Commodore for showing us CDTV owners the kind of support we showed them when we bought the machine... NOT! G Pollard, Amersham.

At time of writing, Commodore were unable to make any comment on rumoured trade-in deals, although we would like to stress that these were only ever rumours. As far as upgrading the machine, you can add extra chip RAM, but that's as far as it goes. If you want to buy a new machine, why go for a PC? What's wrong with an A1200, or even an A4000? When you say that a PC will not date 'as fast' as an Amiga don't forget that people who bought 286PC a few years ago have now been left high and dry in terms of software support while the 386 is almost at the same stage. And a new 486 costs three or four times as much as an A1200.

TONY DILLON

The Sid James of computer games was on top form at the ECTS, legging it around the show



with his hair down, grabbing everything he could get his hands on (oooh-erl). "I do like to keep myself dressed in the latest software" said Tony (ha, ha, giggle, giggle, yuk, yuk).

ANDY LEANING

This invader master of the technical world, our Andy wasn't holding anything back this month (ha, ha!).



"What do you get if you put a piece of software down the front of your trousers and some hardware down the back?" "Underwear!" said he (giggle).

TONY HORGAN

"Oooooo, nooooo", said Tony, who spent most of last month in bed (yuk, yuk). "The sides of my head are numb." Yes Tony. Only, you're about three months out of date. "Oooooo, never!" he continued, getting one line closer to a reprimand (ooo!) by the minute.



JOHN KENNEDY

The star performer (well, well!) of Amiga Q+A was outraged this month: "you can't do that you devils, you'll get it all down the front of your, ooooooo!" he said as his glasses steamed up. "You savvy devils!" he exclaimed as the food food fight continued.



AMIGA

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CU

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NEXT MONTH

"Hi, I'm Tony Dillon and this is the CD32. Next month I'll show you some pictures of Cyberwar on it and you'll probably faint with excitement."



GAMES GALORE.

Valhalla - Oh my god! Just when you thought a cute adventure was impossible!

Robinson's Requiem - If you're ever likely to get stranded on a desert island you'd be well advised to read next month's review.



Robinson's Requiem - setting soon.



Ishar 3 - the sequel to the sequel. If you're going to spend any money on software this summer don't miss **CU AMIGA**!

PLUS: FOOTBALL MANIA CONTINUES!



GETTING SERIOUS...

Following this month's top cover disk, **Video-tracker**, and our Graphics and Video feature we've got some top new products lined up including **Video Creator**, GVP's **Time Base Corrector** and the **DPS PAR** card. We also hope to bring you an exclusive review of a brand new graphics package. Plus: they've done it, they've upgraded **Wordworth 3.0** to **3.0a**. Will it make the grade? All this and more!

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CAN YOU



BELIEVE THE HYPE?

After years of experimentation CD technology is about to take off, with four major players on the console starting blocks. But, with the industry's past track record in delivering the goods on time, Steve Keen asks if it will ever become a reality.

Oh yes, the future is almost here! (to coin a certain lower-selling magazine's phrase). Remember CDTV? How can you forget it. That sleek black box was touted by Commodore as being the future of game technology and, to a small extent, Commodore was right. I still use mine to check out the latest PD disk and play the odd audio CD. Over the last few years Commodore has passed eight different pieces of hardware under our noses only to have them discontinued or replaced, often as little as six months after initial release. So what sort of future can we expect for this newest 'marvel', the CD32?

BACK IN TIME

Although the CD32 was released nine months ago it's only at this stage that quality games are finally beginning to trickle through. *Liberation* has won over many, but with the announcement of the new £249 Spectacular Voyage Pack, including six games of *Chaos Engine*, *Wing Commander* and *Microcosm* quality, things are looking better. What's taken so long to program games that really show off the machine's capabilities though? Well, it takes any new machine time to establish itself and for programmers to get used to the hardware. However, since the CD32 is basically enhanced Amiga technology with a CD drive strapped on, this is not much of an excuse (although trying to fill up 650Mb might be).

UP TO SPEED

However, the market is rapidly changing, and more companies than ever are poised to pounce on the high street punter with their own, all singing, all dancing machines.

3DO, the much hyped company set up by former Electronic Arts big wig, Trip Hawkins, has been pushing its latest technology, licensed by Sanyo and Panasonic, hard. Early last year 3DO promised fantastic quality graphics and gameplay on a CD based machine due for UK release in April this year. But that date has already slipped twice: first to May and now to September. Even worse than that, rumours of machines released before Christmas in America suggest that the software keeps crashing due to problems with the CD drive. In the UK computer trade paper, CTW, 3DO admitted to being 'overambitious'.

Japanese giants Sega don't escape being tarnished with the over-hype brush either. Now poised to reach new heights of hype with its future console, the Saturn, and wonder add-on the Mars, it wasn't too many moons ago that Sega was pushing the rather less than awesome Mega CD. Supposed to revolutionise games playing, the Mega CD has far from delivered the goods. Initially, claimed to have a maximum disc accessing time of 0.5 seconds, the last game I clocked one it sported gaps of more than half a minute between plays! And does anyone remember the Sega home virtual reality unit? No? Well that's because it never materialised! Least said the better.

As for Nintendo, its new machine hardly exists on paper, let alone as a concrete development. The optimistically-titled Project Reality couldn't be much further from fruition. It's a long term project between Nintendo and Silicon Graphics, the computer graphics and film specialists behind

such hits as *Terminator 2*. Nintendo have been raving about Project Reality to the press for months, but so far nothing more than a short demo has appeared and that's only on Silicon Graphics' £250,000 development machine, the Onyx Reality Engine 2. Rumour has it that the Project Reality machine itself won't see the light of day for another two years.

Maybe this will be the year that Commodore's arch nemesis, Atari, will break back into the home console market. Not so long ago Atari single-handedly ruled the home market with its phenomenally successful VCS2600 console and having tried its hand at the hype market before, this time it's gone for a more reserved approach with the 64-bit Jaguar console. Instead of trying to blind punters with buzz words and fantastic claims of performance Atari have been attempting to wow programmers and software publishers first. This approach seems to have paid off because out of all the new systems due for release, people in the know are tipping the Jaguar most likely to succeed. However, even though launch is only two months away, there are only a handful of games, even remotely close to completion, and several of those are tired old shoot 'em ups and conversions. To make matters worse the CD add-on for the console has been cruelly dubbed 'the toief' by the industry, due to its resemblance to an Armitage Shanks flip top model. Hardly a prized purchase.

BIG BOYS' TOYS


Out of all the new machines that will emerge over the coming year only one has really caught everyone's imagination – Sony's PS-X. This CD based phenomenon has caused a stir throughout the industry, with tales and screen shots of better than arcade quality graphics and coin-op perfect conversions of multi-thousand pound machines, such as *Daytona Racing*. However, all these wonders are still months or years away and launch dates can prove notoriously slippery.

So what can Commodore offer with its CD32? Well, for a start it's here now! And with the new value pack it hardly costs an arm and a leg. Software support is strong too – there are over 80 games already available for the machine. But most of all, the CD32 has a new FMV cartridge, allowing movies and the like to be played from compact disks. Every one of the 5000 advanced units has already been sold.

CD32 is still in there and you can be sure that

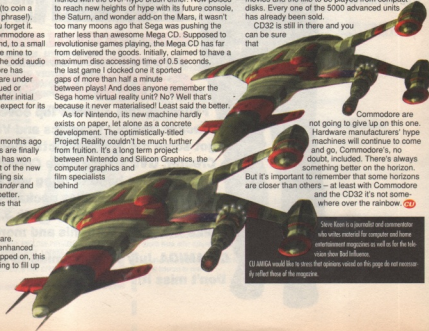
Commodore are not going to give up on this one.

Hardware manufacturers' hype machines will continue to come and go, Commodore's, no doubt, included. There's always something better on the horizon.

But it's important to remember that some horrors are closer than others – at least with Commodore and the CD32 it's not somewhere over the rainbow. 

Steve Keen is a journalist and commentator who writes material for computer and home entertainment magazines as well as for the television show *Bad Influence*.

CU AMIGA would like to stress that opinions voiced on this page do not necessarily reflect those of the magazine.





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Available in larger Boots Stores and
main W H Smith computer games stockists

Other Lemmings packs available

